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COMMONWEALTH OF PENNSYLVANIA
FISH COMMISSION

HONORABLE RICHARD L. THORNBURGH

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JANUARY—1970

ENNSYLVANIA Angler

the Keystone State's Official FISHING · BOATING Magazine...





"POLITICS" . . . in everything—

There is a system of controls on every human setting. These constraints are designed to channel and uphold a particular social order to which people and their so-called leaders are presumably committed. These controls express attitudes and aspirations that over time have influenced the prevailing institutions of the society. The controls are implemented by such factors as habit, organization, status, material reward, persuasion, coereion, and formal law. Although power is frequently described as a corrupting and restricting foree, it is inherently neither good nor bad. Power is a resource necessary for orderly action. It is employed to make and enforce decisions, and to define behavior. In any advanced technological setting, the hierarchy and the resulting discipline necessary for the controls over the complicated process will inevitably spill over to embraee ever-inereasing areas of life.

Reeently, an elected legislator from a southern state related an ineident wherein he was invited to speak to a service club (Rotary, Kiwanis, Lions, etc.). Agreeable to this appearance, the Senator appeared and was advised not to approach in his remarks anything that bordered on thc "political." The Senator indicated that he would not agree to such stipulations, as there is nothing in this world that is not "political."

Our everyday lives are affected by the political processes more than we would like to admit. It even pervades our elubs, our churches, and yes, even our families. Howard Hardie spends a great deal of his time on the Hill as liaison for the Fish Commission, particularly with the Legislative Branch of state government. This is sometimes a frustrating oecupation, however faseinating.

There were almost 4500 bills introduced in the House and Senate during this past two-year session. Sixty-seven of those bills affected, or were of concern to the Fish Commission, and comments were sent to the Governor's Offiee and the sponsors. We favored and worked for 13 of these bills, and 11 of these became law. Fifty-four of the bills on which we commented were not favored and none of these became law.

A new session starts this month, and we look forward to working with many old acquaintances, as well as some new faces.

Ralph W. Abele,
Executive Director

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

Published Monthly by the
PENNSYLVANIA FISH COMMISSION
COMMONWEALTH OF PENNSYLVANIA
Richard L. Thornburgh, Governor

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Volume 48 - No. 1 **January, 1979**

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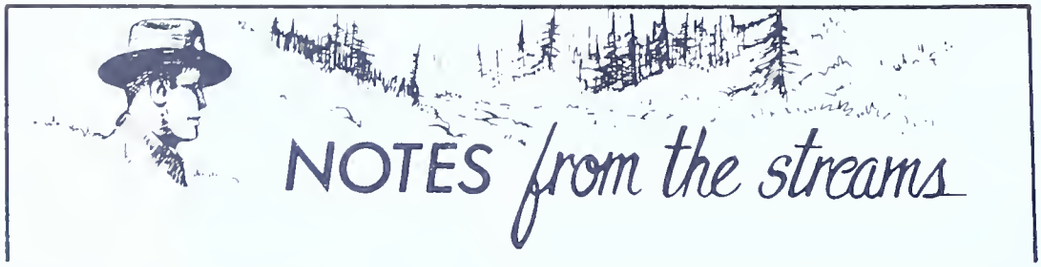
Generally considered the most prized table fish anywhere, the walleye will be taken in good numbers both by ice fishermen and those who still pursue him in whatever open water might remain in our rivers. Tom Duran, Jr., Office of Information staff artist, depicts the walleye in a typical scene — a never ending quest for a meal!

BACK COVER

Ice fishermen are sometimes considered a strange breed, but "don't knock it if you haven't tried it." Photo by Russell Gettig.

James F. Yoder, Editor

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FAST-GROWING SPORTS

From all the conversation that takes place here and there pertaining to winter sports, I must assume that ice fishing and cross-country skiing are the two that are growing by leaps and bounds. It seems like everybody in northern Pennsylvania are getting out more in that white fluffy stuff.

Bernie Ambrose
Waterways Patrolman
Elk Country

FEATHERWEIGHT

During the West Penn Sportsmen's Show at the Pittsburgh Civic Arena, Mr. Ernie Sotirake of Cheswick stopped by our booth to buy his fishing license. As I was completing the license information transfer from his application, I paused when I got to height and weight. Mr. Sotirake had mistakenly written "6 ft." in the *height* column and "½" in the *weight* space thinking it was for inches. I jokingly said, "I know you weigh more than half a pound!" Ernie laughed and replied, "Your're right! I weighed that much when I was born!"

Donald F. Parrish
Waterways Patrolman
McKean County

COINCIDENCE?

During the two years and some odd months I have served the Pennsylvania Fish Commission in the Southern Luzerne County District, I have offered District Game Protector Nolf of Conyngham a boat ride/patrol no less than ten times. He had always found a reason not to accept until today.

Coincidentally, I am sure, I have never broken a shear pin during that same length of time . . . until today!

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

MISTAKEN IDENTITY!

While patrolling the Dents Run area I passed Deputy Game Protector John Dzemyan and we stopped to talk. Earlier in the day I had passed a nice patch of blueberries which were too nice to pass up so I picked about four quarts and carried them in a plastic pail. I held the pail up to the car window and John's wife, Carol, quipped, "Are you collecting *those*?" John and I were puzzled at the terminology used by Carol. So John mentioned they were blueberries. To this Carol replied, "Oh, I thought they were deer droppings and I couldn't think why you would want to collect deer droppings."

Stanley G. Hastings
Waterways Patrolman
Cameron County

STILL TIME —

With the winter approaching most anglers put the rods and reels away for another season. For those who have never fished for bass, walleyes, trout and most other freshwater species after the Labor Day holiday, you are missing the best fishing time of the entire year. A half dozen squirrels on Saturday and a half dozen bass on Sunday is a fine way to top off any week . . . think about it.

Ronald L. Hoffman
Waterways Patrolman
S/York County

SHAME ON THEM!

One afternoon while patrolling on the Delaware River, Deputy Lewis observed what appeared to be a person in the water near a drifting boat. Closer inspection revealed it to be two youngsters in the water, each wearing a PFD. An inquiry to the operator of the vessel regarding their need for assistance was answered in the negative, with the explanation that "... they were only *using the bathroom!*"

Frank Schilling
Waterways Patrolman
Philadelphia County

NEW "SWITCH"!

According to my wife and son, my prowess in the fine art of angling has had little effect on fish populations in my district. However, I am improving. Just last week, for example, an old-timer I've talked with on several occasions made me the beneficiary of a secret for surefire success when fishing for crappies on lakes and ponds.

He told me all I'll need besides my tackle is a small tree limb complete wit leaves. The idea being to beat the water fo a minute or two with the limb, duplicatin (so I'm told) the sound of a school o crappies feeding on the surface. Then, i there are any crappies in the area, they wi also want to partake in the feast; resul instant success.

Wait till my wife and son hear this one! have an idea they will re-evaluate thei opinions of me.

Ronald L. Hoffman
Waterways Patrolma
S/York County

MOBILE "BAIT DEALER"!

While on patrol of Marsh Creek Lak recently, I observed a young boy abou seven years old fishing from the large rock along the causeway. He appeared to b having some success in catching bluegill as I watched. After a few minutes, he stoo up and turned his back to me as he reache for something nearby. To my amazement he had a hand-painted sign approximatel ten by twelve inches in size on the middl of his back, which read "WORMS FO SALE."

This lad believes in mixing business wit pleasure!

Ray Bednarchik
Waterways Patrolma
Chester County

ON THE BRIGHTER SIDE...

While working the display booth at th Bloomsburg Fair, the following conversation was overheard.

"George, do you realize that those kid are lost again? This is the third time toda — maybe this time we won't find them!."

"Be quiet, Alice, it's cheaper this way!"

Robert E. Fasching
Waterways Patrolman
Lackawanna County

ALL IN A DAY'S WORK —

When all husbands return home from work in the evening, most of the conversations are pretty much alike. This conversation at the end of a day between my wife and me started similarly, but ended differently.

Wife: "Did you have an interesting day?"

My reply: "Yes."

Wife: "What interesting thing happened?"

My reply: "I spent most of the morning with the President of the United States."

Wife: "I know that you got out of bed at 4:30 a.m. this morning, but it should not have taken you all that time to think up a story like that, and besides, it is not even remotely believable."

My reply: "OK, I knew you would not believe me, so here is his autograph."

Warren W. Singer, Jr.
Waterways Patrolman
Adams/N. York Counties

BUT HE DID!

Deputy Waterways Patrolman John Lythgoe and I were conducting routine boat patrol on Glendale Lake when we observed a boater having a problem with his motor. I came alongside and asked the boater if he wanted to be towed in since he couldn't get his motor started. In reply, he said, "No thanks, it's only flooded."

I decided to stay in the area just in case his motor failed to start. The boater kept muttering to himself as he pulled and pulled. It was a hot day and this didn't help as he pulled and pulled, trying to start his motor. After sweating up a storm and getting raw spots on his hand, he decided that he did need to be towed in to shore. It goes to show that some people just hate to give up!

Robert L. Kish
Waterways Patrolman
Cambria County



THANK YOU!

When my father, Ed Whitman, caught his prize shad last July, he was delighted to see his picture in the August issue of the *Angler*. My father has been fishing for over 40 years and I think seeing his picture was the biggest thrill for him. The fish and the picture are now being mounted. My father doesn't know I'm writing this letter because right now he is in Michigan fishing. I'd bet you one thing though, he has that issue of the *Angler* with him! Thanks again.

PEARL WHITMAN
Upper Black Eddy

ON MUSKIES, ETC. —

In regards to the article in the October issue of the *Pennsylvania Angler*, page 31, under "*CHARGE*," by Dan Vernon, Havertown, I would like to say that he wasn't seeing things when he said he saw a musky swimming towards his boat with its head out of water.

Quite a few years ago I was trolling for musky with a friend of mine in Rice Lake in Ontario, Canada, and had a similar experience. A musky came out of the water and proceeded to swim towards my boat with its mouth wide open. When it got close to the boat, it saw us and dove out of sight.

In all my days of fishing for musky I never saw one that acted like this musky.

W. R. STAMFORD
Allison Park

MORE ON MUSKIES —

While reading the Leaky Boots in the October issue of the Pennsylvania Angler, I came across the article by Dan Vernon concerning the incident of the musky that was swimming toward their boat with its head out of the water. The way you replied to his article seemed to me that you did not believe him. A similar incident occurred with me at Lake Galena recently when an enormous musky was swimming on the surface of the water with its head fully exposed for a good five minutes. It did not head back under the water until we went right up to it with our boat. The way it had its head out of the water with its mouth wide open gave me the impression that it was gasping for air. Maybe you can comment on this. Thank you.

DOM CENTONZE
Philadelphia

STILL MORE ON MUSKIES!

In the October issue of *Pennsylvania Angler*, a Mr. Dan Vernon, from Havertown, wrote about a musky swimming with its head out of the water and your answer was — though maybe in jest — "*suppose we take a sniff of his thermos.*" This was no doubt an unusual occasion for Mr. Vernon.

I work at Pymatuning Lake (Pymatuning State Park at Jamestown, Pennsylvania) and I'm on the water from April through October. Anytime from late June through August, it is not unusual to see muskies swimming with their head out of the water. If you doubt this, get away from your desk and come to Western Pennsylvania next season and perhaps we can even get you some pictures of them swimming like that. Or, check with the local Waterways Patrolman, Warren Beaver.

Very truly yours,
DEL J. LANDFRIED, LAKE PATROL
Pymatuning State Park

Of course my answer was in jest. Thanks to you, Messrs. Centonze and Stamford, I'll jest no more . . . well, maybe jest once in a while!

Seriously, since these four reports come from such widely scattered locales we can almost assume that it's one of the musky's traits. Perhaps all the attention given the subject here will prompt someone ichthyologically oriented to proffer a scientific opinion. *That* might be interesting. Ed.

SOME WORDS TO THE WISE:

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MEALS from the CREEL

by Arthur J. Michaels

The Fireside Fish Cook

If ice fishing isn't your thing, now that it's the middle of winter you'll be bored stiff. No fishing, no fun, and you're counting the days 'till spring. What a way to start the new year! Horrible thought, isn't it?

Your winter doesn't have to be boring. Now's the time to immerse yourself in a sea of useful, informative and entertaining cookbooks when you're not fishing. While temperatures are dropping and snow is falling you can drop in to a new world of recipes and information to sharpen your fish cookery know-how. Then, when you creel your first fish in spring, your recipe storehouse will be brimming and your kitchen know-how will be better than ever.

But what cookbooks are useful? Which ones are interesting? Where will you find new recipes and ideas you'd really like to try? Not to worry. Here are some suggestions to help you steer through the stacks of your local library and bookstore.

For starters, try *From Hook To Table* (by Vic Dunaway, Macmillan Publishing Co., Inc., $4.95). It's a fine "nuts-and-bolts" choice. The book's seven chapters and 150 pages offer basic, no-nonsense instruction in cleaning and cooking fish. Novice fish cooks, in particular, will find the second chapter's fifty-seven photographs most helpful in learning how to dress panfish, trout and salmon, prepare large fish for baking, prepare fillets, make fish steaks two ways, skin catfish, bone shad, and butcher really big fish.

If you're an experienced fish cook, the no-frills approach of *From Hook To Table* can help you improve the variety of fish preparations you already employ.

On the other hand, *Shrimply Delicious!* (by Eva Jean Schulz, Doubleday & Company, Inc., $4.95) is a detailed, in-depth diversion, delving into the pleasures of shrimp cookery. Everything about shrimp appears in this book: buying shrimp, preparing and storing them, and, of course, cooking the little things.

Did you know that shrimp are found in oceans all over the world and that shrimp yield about 25% digestible protein? No wonder why you can find shrimp recipes in countries all over the world! *Shrimply Delicious!* offers an international menu of American, Mexican, Pan-American, Scandinavian, Italian, and Oriental recipes. The book is out of print now, but you're still likely to find it on the shelves of your local library.

Do you enjoy catching fish but don't care much to dine on your catch because fish never seem to be cooked and prepared to your liking? Then *Fish Cookery* (by J. Charles Davis, A. S. Barnes & Co., $5.95) may interest you. It's a general overview of fish cookery, but it's not just a listing of recipes. You may learn a mouthful of new specifics from the chapters "Tools of the Trade," and "What Should I serve with fish?" Both chapters point you toward making your fish meal preparations *taste good* — and this is the plus you'll find throughout this book. Don't give up on eating your catch without checking this book out.

If you're looking for something different or unusual, try *Fish For All Occasions* (by Ninette Lyon, Rand McNally & Co., $4.95). This book is a detailed, thorough volume, and a wealth of fish cookery know-how appears in the book's 270 pages and twenty-two chapters. In addition to traditional chapters on buying fish, preparing fish and cooking, freezing and preserving fish, take a look at the chapters for fish pancakes and stuffings for fish. The recipes in these chapters are worth a trip to the library on a cold, blustery day.

Another unusual choice is *The Sea Vegetable Book* (by Judith Cooper Madlener, Clarkson N. Potter, Inc., $14.95 hardbound, $6.95 paperback). "Sea vegetable" is a nice way of saying seaweed, or marine algae, to be specific. This book is a nice way to learn how to harvest and cook sea vegetables. The book's 288 pages are packed with preparation instructions, sea vegetable recipes and useful additional information. Even though the book is expensive to buy, you can harvest it first at the library.

Are you looking for a superb gift? *The Settlement Cook Book* (Simon and Schuster, $9.95) is the perfect gift for everything from birthdays to engagements and wedding anniversaries, considering its rich history.

At the beginning of this century, America was flooded with European newcomers. Mrs. Simon Kander, of Milwaukee, Wisconsin, was one of many volunteers in a settlement house, organized to help new Americans learn American ways. Settlement houses offered classes in citizenship, English, sewing and cooking. Mrs. Kander taught cooking classes, but with great difficulty. In addition to the language problem, copying recipes from a blackboard was time-consuming and laborious.

In 1901, her idea to print the recipes and instructions became the first settlement cookbook, titled, *The Way to a Man's Heart . . . The Settlement Cookbook.*

Today, the 567 pages and twenty-seven chapters of *The Settlement Cookbook* make an excellent all-around reference for the beginning cook as well as the seasoned connois-



Would you believe . . . there are over 3,400 cookbooks available in bookstores and libraries.

seur. *The Settlement Cookbook* touches on almost every aspect of American cookery, including the 26-page chapter on fish and seafood.

Kids Cooking Complete Meals (by Aileen Paul, Doubleday & Company, Inc., $4.95) and *Kids Are Natural Cooks* (prepared by Parents' Nursery School, Houghton Mifflin Company, $5.95) are excellent books for the ten- or twelve-year-old aspiring cook. Both books have easy-to-follow recipes of tempting, original menus. In addition, both books have advice for adults, parents or teachers on how to help children learn about food, cooking and nutrition.

Specifically, *Kids Cooking Complete Meals* offers party menus for kids, regional and international recipes of Denmark, Hawaii, Mexico, Switzerland, New England, the South, the West, family recipes and nutritional information for all food ingredients in the recipes.

In contrast, *Kids Are Natural Cooks* focuses on recipes conceived and prepared by children, using natural foods. Chapters and recipes are divided into four sections, corresponding with fall, winter, spring and summer. The book's "Guidelines for Teachers and Parents" is particularly useful, spelling out a psychology of teaching kids to cook and listing safety tips for the kitchen area.

Both books make fine gifts for any upper elementary school-aged child. If you can't get these books at a bookstore or the children's section of your local public library, you might be able to find them in the library of your local elementary or junior high school.

For several reasons, *Pennsylvania Anglers Cookbook* has to be your final fireside cookbook consideration. For one thing, it's a thorough treatment of fish cookery. It offers precise, easy-to-follow instructions for preparing and preserving fish in several ways, and nowhere else can you find such a wide variety of recipes at such low cost. *Pennsylvania Anglers' Cookbook* is also the easiest cookbook to get. It's available for $2.50 from the Pennsylvania Fish Commission, P.O. Box 1673, Harrisburg, Pa. 17120. (Checks or money orders, please.)

Even if you're gripped by winter's cold clutches you can get a good handle on your fish cookery by curling up in front of your fireplace with a good cookbook.



A new borough ordinance which requires fishing shelters to be removed from the ice at the end of the fishing day will make lightweight, portable shelters, such as this, more popular than ever.

In the wee hours of the morning . . .

SMELT FISHING

is tops at Harveys Lake

by Gerry Kingdom

I had just fallen off to sleep when the phone jolted me out of a dream.

"Hello?"

"Get your clothes on, old buddy . . . the smelt are running!"

Before fishing partner, Bob "Frostbite" O'Boyle had a chance to finish the next sentence, I was halfway into a pile of togs that I had piled by the side of the bed for just such an occasion. Because when word starts spreading that the smelt are "running" at Harveys Lake, anglers in this neck of the woods awaken like firemen — fast!

By midnight, an hour or so later, we were sitting in his portable shanty on the ice and snow covered 658-acre Luzerne County lake. The anticipation was murder.

My partner rigged a one-inch minnow on a size 12 hook and added a tiny weight to his line. In a matter of seconds, he was fingering his two-pound-test line, feeling for the slightest nibble.

"Got one!" he hollered, as he hoisted a flapping seven-inch smelt onto the ice. "Are we in for a picnic!"

Indeed we were. Before the night was over, we had bucketed more toothy-mouthed little scrappers than I'd care to count. It was a night to remember.

Just who is the little freshwater battler who made it so memorable? The little smelt is a saltwater or freshwater fish that is characterized by a small, slender body and sparkling, silver sides. He is almost a carbon copy of Pennsylvania's miniature landlocked salmon, the kokanee.

Like the landlocked salmon, the smelt was originally a saltwater fish, but was planted in inland waters of the Great Lakes back near the turn of the

century. He adapted extremely well. So much so, in fact, that today commercial fishermen harvest millions of pounds of smelt each year from Lake Erie alone.

Sport fishing for the smelt in Lake Erie attracts thousands of anglers too. On good days they take tons of smelt from the Presque Isle Bay area.

Just about midway through this century, the Fish Commission transported smelt to the eastern side of the state and stocked them in Harveys Lake. They took beyond expectations.

Though smelt fishing at Harveys Lake doesn't approach the proportions that it has reached at Lake Erie, it does provide eastern Pennsylvania anglers with an opportunity to try this unique fishing experience.

Fishing for smelt requires special gear and special know-how, regardless of what lake you're fishing. In fact, you might say that smelt fishing requires special "housing."

Fishing shacks, or "shanties," were traditionally used by smelt anglers for shelter. Once the smelt runs had started, these "shanties" proliferated into miniature cities. Permanent "shanties" are no longer permitted; all shelters must be removed at the end of the fishing day. A popular new type of "shanty" is the portable, transparent type which can be folded for easy transit.

Tackle commonly used in smelt fishing is of the lightweight type. Ultralight rods, or jigging rods, are most popular. Tip-ups are rarely used by the smelter because they are too insensitive to a smelt's delicate nibble.

Another contraption of relatively recent vintage has become a popular smelt fishing accessory — the jigging rod extension. This miniscule, single-eyelet rubber tip snaps onto the tip of your jigging rod, and, because it vibrates at the slightest touch of the line, telegraphs a nibble quickly.

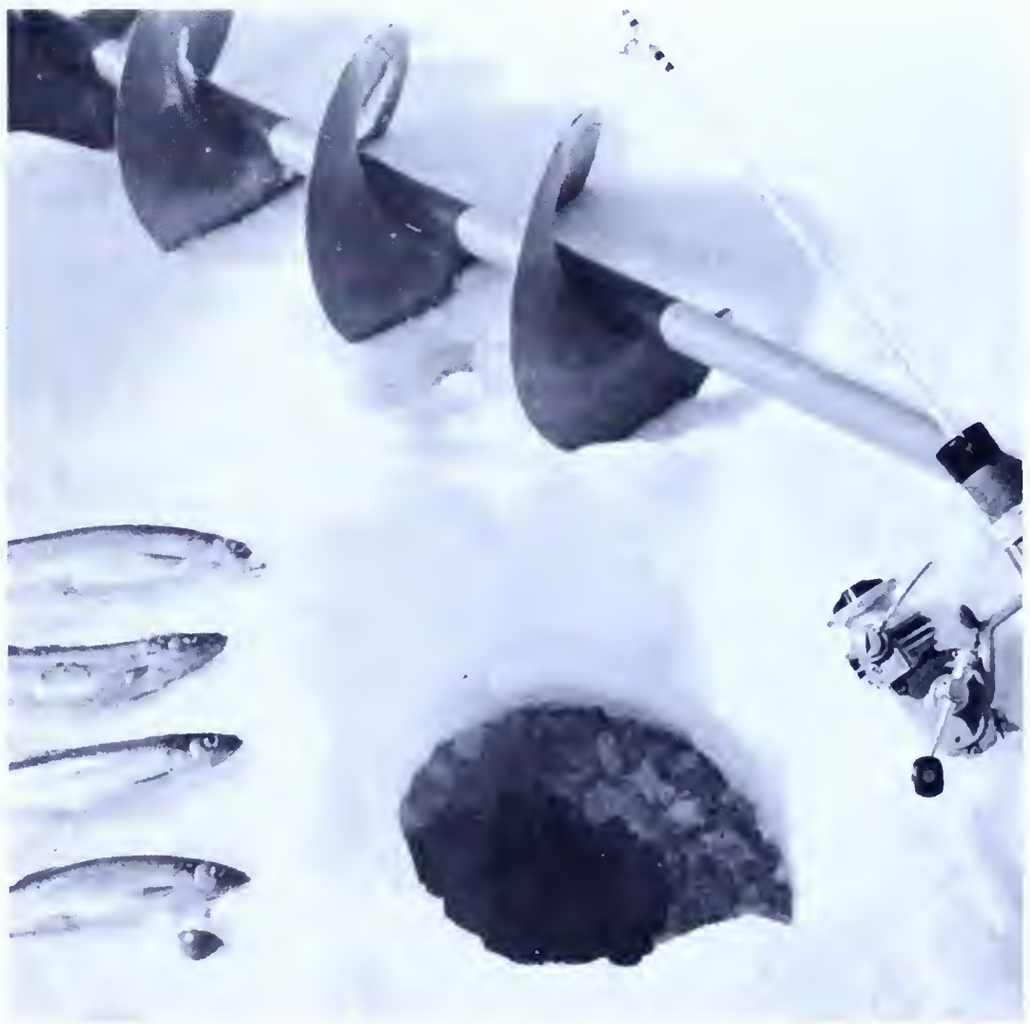
During the past season, I came upon a party of smelt anglers whose catch showed just how effective these little gizmos are. Of the five anglers whom I spoke to, two had taken about 75% of the smelt caught — only those two anglers had used the rubber extension.

Aside from the tackle he chooses, perhaps the most important feature of the smelt fisherman's preparation is his selection of bait. Most smelters



The diminutive American Smelt is not to be underestimated in providing great fishing fun. Once a "run" starts, the action can be expected to continue for hours with many evening catches running to the hundreds.

Fishing for smelt is best done with jigging rods adapted with extensions extremely sensitive to the smelt's light nibble. If you don't have one, it need not spoil the fun, an ultralight rig will serve quite well.





Some Harveys Lake smelters can't wait and start early. This is not the prime time for smelt fishing.

agree that small, one- or two-inch-long minnows, or filets of smelt themselves, are the premium baits. Others find best results using grubs or strips of worms. Regardless of what bait you choose, keep in mind that smelt measure in the seven- to twelve-inch range. Smaller baits, therefore, are most productive.

Once you've rigged your gear and selected your bait, your next step is to find the right depth. Since smelt feed from anywhere within a two- to twenty-foot range, your best bet is to work various levels until you run into action.

Don't waste time waiting for smelt to come to you. They won't. If you can't locate them in a given area, try another. Though they do move around, they usually stay within a relatively small general area.

Incidentally, smelt do have a peculiar feeding trait. They feed bunched closely together. That's why you'll usually find smelt anglers hovering over holes that have been augured somewhat close to each other.

What times are best for smelt fishing? The after-dark hours during the January/February run. Daytime smelt angling under ice is very unproductive.

Because smelt spawn prolifically and can only be caught during a very limited time period, no creel limits are placed on the fish.

If you do manage to bucket a load of smelt, you've got yourself the makings of a fine gourmet meal. Be sure that you freeze your take quickly and keep it frozen. Smelt are rich in oil and spoil quickly.

Not too long ago, old "Frostbite" and I were enjoying one of our many smelt outings when he popped a question to me that made me give some thought to the joys of smelt fishing.

"Are we crazy?" he asked. "It's three o'clock in the morning, 10° above zero, snowing like the devil, and we're sittin' here fishin'. Why?"

"You have a point there," I answered, "but look at the good side of it. It's peaceful and quiet. The action is consistent and unique. The air is invigorating. And when they ask at home if we caught anything, we don't have to tell about the ones that got away."

Just then "Frostbite's" line took a downward plunge and excitement lit up his face. I guess that little smelt was answering his question.



Shown at left is a scene from bygone days. Large shanties, some multi-roomed, were left behind by unconcerned anglers, littering the lake with floating debris after the ice had melted. The hazards to boaters and the general mess with which shoreline residents had to contend brought the semi-permanent shanty's days to an end — and rightfully so!

The Pennsylvania Fish Commission Annual Report



During this 113th year in the history of the Pennsylvania Fish Commission, the nine-member panel met four times: July 25, 1977 in Harrisburg; October 17, 1977 in Erie; January 16, 1978 in Harrisburg; and April 17, 1978 in State College. Under the Administrative Code the Pennsylvania Fish Commission consists of "nine competent citizens of the State shall be appointed by the Governor by and with the advice and consent of two-thirds of all the members of the Senate. Eight members of the Commission shall be persons well-informed on the subject of conservation and restoration, and one shall be an experienced boatman to hold office for terms of eight years each and receive no compensation for their services."

The details of the activities of the Commission's operations follow in the individual bureau and division reports. However, highlights of policies, regulations, and approved programs by the members of the Commission need emphasis.

Commissioner William Cox was elected President for this fiscal year, with Jerome E. Southerton serving as Vice President.

A breakthrough in securing fishing and boating opportunities on water supply reservoirs was achieved when Lake Williams and Lake Redman in York County were made available for the fishing and boating public.

Hybrid striped bass X white bass were introduced for the first time in the Conowingo Pool as an efficient predator for a growing population of gizzard shad.

The Commission amended the state list of endangered species under our jurisdiction and approved new operating procedures for the cooperative trout nurseries.

The Commission began to study the possibilities of participating in a new marina project on East Avenue in Erie to offset the burgeoning demand for boating access to Lake Erie and eventually approved the use of $200,000.00 of Boat Fund monies as part of that project. Approval was secured from the Commission to apply for a gift purchase of part of the Frankford Arsenal property on the Delaware River for boating access.

New regulations were adopted on marine sanitation devices, noise, mufflers and, for the first time in history, we promulgated boating regulations on the Schuylkill River within the boundaries of Fairmount Park.

Seasons and creel limits were authorized for 1979, with some of them being made effective for the extended season of 1978. This included the establishment of uniform creel limits of eight (8) trout per day on both lakes and streams, and extended the trout season (at reduced levels) until February 28, 1979.

With problems of inflation and higher personnel costs still affecting our operating balances, and operating under a voluntary cut in operating budgets straight across the board, we still pushed for a general license increase of $1.50 for resident, nonresident, and tourist licenses.

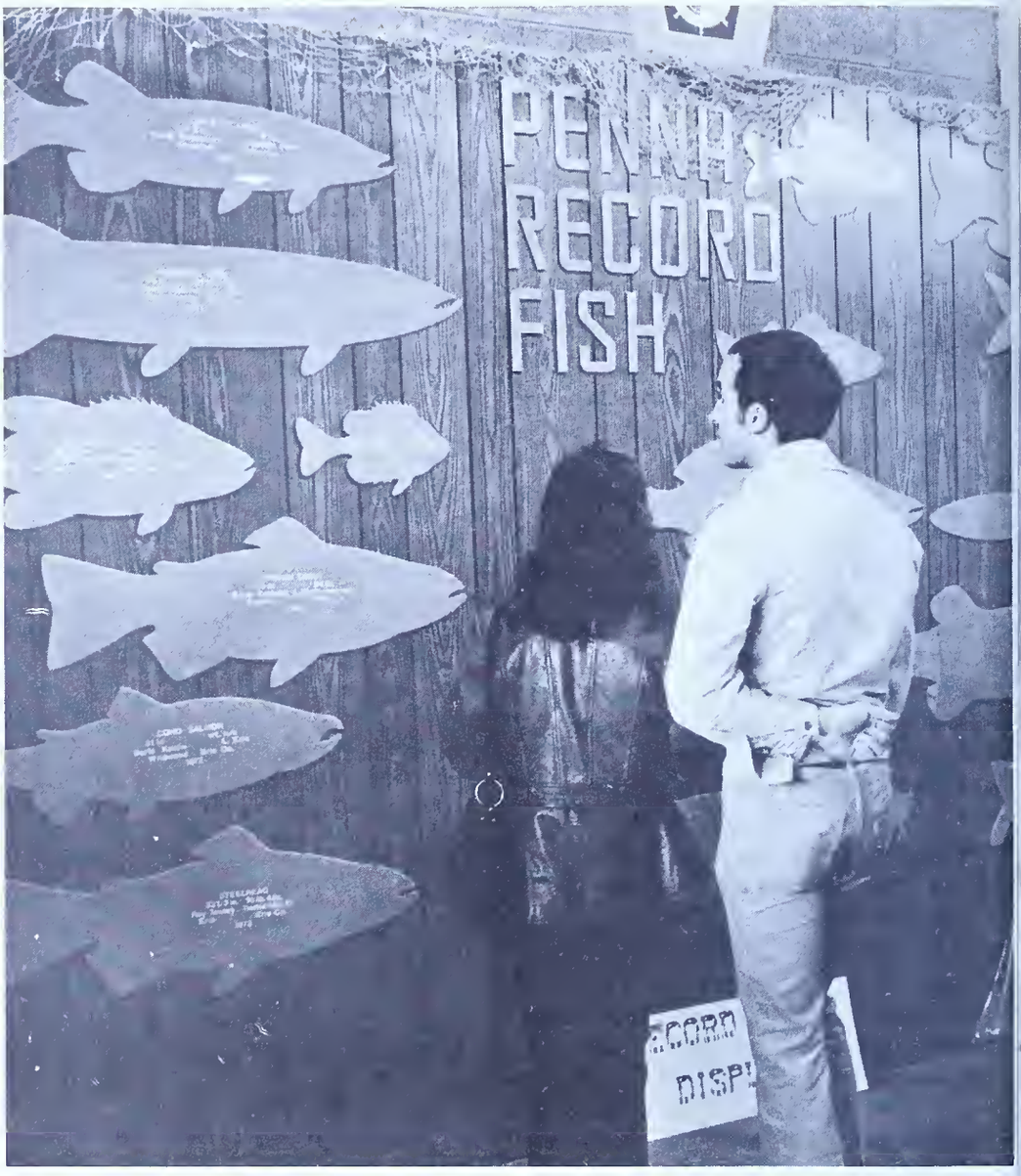
With record fish production and record sales of fishing licenses (for the first time in history, we went over the one million mark in license sales), and with boating registrations showing record increases, the Commission staff — still at the same level for the past three years — remained cautiously optimistic about the future of ambitious goals. The comprehensive inventory, surveys, and classification of all the waters of the Commonwealth continues and is still one of the most promising programs ever undertaken. Public involvement and support continues to encourage the Pennsylvania Fish Commission in its role as the last independent Fish Commission left in the United States.

RALPH W. ABELE
Executive Director

Office of Information

The basic purpose of this office is to assist the Commission and its employes in keeping the public informed on fishing and boating subjects. These include not only the places in Pennsylvania where fishermen and boaters can enjoy these pastimes, but also the rules, regulations and laws which govern fishing and boating. The ultimate goals of the Commission's public information/education programs are better fishermen and safer boaters.

Unlike private industry which advertises its products or services, the Commission must rely almost entirely on the mass media to communicate the fishing and boating news to the public. During the year, more than 70 news releases were produced and mailed to outdoor writers, newspaper and magazine editors, and radio and television stations. In addition, the public information staff, waterways patrolmen, and many other Commission employes worked directly with reporters and writers on story assignments covering fishing and boating or the work of the Commission in providing, protecting and improving these outdoor recreation activities.



Office of Information staff design and construct exhibit components used in major displays. This is part of the PFC "Record Fish" display unit.

PUBLIC SPEAKING ENGAGEMENTS

As in all efforts to keep the public informed, the most effective form of communication is direct contact between citizens and Commission employes. Public speaking engagements, often enhanced with slides or other audiovisual aids, were carried out by field officers, fishery biologists, hatchery personnel and many other Commission employes. A summary of these activities appears in another section of this Annual Report.

PUBLICATIONS

A wide range of fishing and boating information is contained in over 50 publications printed or reprinted each year by this office. More than 10,500 requests for one or more of these publications were filled by this office in Harrisburg during the year. In addition, thousands of these publications were distributed to the public through other Commission offices, meetings attended by Commission employes, and exhibits at sportsmen's shows, shopping malls and county fairs.

PENNSYLVANIA ANGLER MAGAZINE

By far the best source of information on Pennsylvania fishing and boating, as well as the programs and work of the Commission, is the "Pennsylvania Angler," the official monthly fishing and boating periodical of the Commonwealth. The magazine was mailed to more than 50,000 households each month during the year, with paid circulation showing a slow but steady increase.

EXHIBITS

Office of Information staff members assisted the Commission's Northeast Region staff and waterways patrolmen in coordinating, constructing and manning "EXPO '78," held at the Wyoming Valley Mall in Wilkes-Barre, March 1–5. More than 15,000 people viewed the 26 displays, demonstrations, fishing clinics, and boating safety instruction during this unique event, designed and manned entirely by Fish Commission personnel.

In addition, major exhibits were erected and manned at large sportsman and outdoor shows in Philadelphia, Harrisburg, Pittsburgh and other metropolitan centers, as well as a number of boat shows. A number of Commission displays and exhibits were also erected at the request of sportsmen's clubs for National Hunting & Fishing Day in September.

CONSERVATION & ANGLER AWARDS

The Office of Information issued 351 Senior Angler Awards and 346 Junior Angler Awards for trophy fish caught during the year. In recognition of the efforts expended by individuals and organizations in aiding the Fish Commission in its endeavors, 257 Conservation Awards and 15 Conservation Service Awards were issued during the year.



Waterways Patrolmen are required to shoot a Handgun Qualification Course.

Bureau of Waterways

GENERAL

The Boating Advisory Board, chaired by Nicholas Apfl met twice during the past year. Composed of five knowledgeable boatmen appointed by the Governor, the board functions in an advisory capacity to the Commission in matters regarding boating equipment and operations. Special regulations for Fairmount Park, Youghogheny Reservoir, Chillisquaque Lake, Neshaminy Creek, Treasure Lake, Lake Wallenpaupack and Lily Lake were recommended by the board and approved by the Commission. Also approved were regulations involving noise level restrictions and marine sanitation devices.

Taking note of the fact that more and more accidents are occurring on rivers and streams, our educational approach began to take on a new look. Members of the staff attended various small-boat training sessions to become more familiar with the problems encountered by small-boat operators. A major session took place in Easton, Pennsylvania in which some of the nation's top personnel in watercraft education assembled to discuss problems in educating the public and to exchange ideas as how best to accomplish the goals of safe boating. Cosponsored by the Fish Commission, the River Safety Symposium was declared a resounding success with a repeat symposium to be held again next year and with various participants taking the idea back to their section of the country for regional symposiums.

Concurrent with this idea, a two-day program was held at Cumberland Valley High School, bringing together representatives of Pennsylvania Schools with the purpose of convincing them of the need for teaching boating safety in the schools and showing them that it is possible and worthwhile. The germ was laid and much constructive discourse has taken place since. At least one of those in attendance gave the program a trial exposure in his school and considered it a success. It is hoped that more districts will become interested in the upcoming year and we will strive to nurture this interest.

Law Enforcement Division

The activities of the division continue quite varied. Because of the untimely death of Waterways Patrolman Lloyd Wilson, the retirement of Waterways Patrolmen Clarence Shearer and Wilbur Williams, and the need to fill other existing vacant districts, quite a number of personnel changes took place in this year. A number of waterways patrolmen were reassigned to fill some vacancies and six new officers were hired from the Civil Service list to fill most of the remaining vacant districts.

To maintain a professional Corps of Waterways Patrolmen, various types of training must be provided. A one-week in-service training session was held at the Pennsylvania State Police Academy with all instruction being provided by the Academy Staff. Laws of Arrest, Laws of Evidence, Rules of Criminal Procedure, Search and Seizure, Civil Liability, Report Writing, and Self-Defense were just some of the subjects covered. All waterways patrolmen were required to shoot a Handgun Qualification Course, also held at the Pennsylvania State Police Academy. Also included was instruction in the proper use and handling of firearms.

The newly appointed waterways patrolmen attended a one-week training session at the H. R. Stackhouse School of Fisheries Conservation and Watercraft Safety. Instruction was provided by staff members and a representative sample of the subjects covered include Fish Law, Boat Law, Fish and Boat Regulations, Criminal Procedure, Pollution Investigation and Boat Accident Investigation. All new waterways patrolmen either have attended (or will) the United States Coast Guard Boating Safety School at Yorktown, Virginia for additional training.

In-service training for all deputies and district officers was held in all six regions. These training sessions were in-pool demonstrations on water safety which included the proper use of personal flotation devices, smallcraft handling and safety and other related items.

To keep abreast of current laws, regulations, and Commission policies a number of regional meetings were held for district officers with appropriate members of the Commission staff attending when necessary.

For the first time in many years, the number of persons prosecuted or warned for violating provisions of the Fish or Motorboat Laws has decreased slightly. The total number of persons prosecuted

was 7061, the number of written warnings was 7041, 2579 for fishing violations and 4462 for boating violations. A total of 25,563 boats were "boarded" by division personnel with 19,470 meeting legal requirements.

Public Relations Programs, that is, keeping the public appraised of Commission programs and policies regarding fishing and boating activities consumed a considerable amount of the district officers' time. Patrolmen were assisted by their deputies in presenting boating schools, fishing schools, appearing at sportsmen's club meetings, manning displays and exhibits at fairs, sport shows and malls, presenting programs to schools, churches, scout and civic organizations. Fishing and boating information was also supplied to the public via telephone, written correspondence, newspapers, radio and television. A total of 2317 appearances were made by division personnel with 403 films and slide programs being presented.

The division remained very active in its efforts to preserve water quality and to maintain and improve fish habitat. This included the investigation of 360 water pollution cases that occurred during the year. Most pollution incidents are investigated in cooperation with the Department of Environmental Resources and many investigations resulted in the prosecution of violators. A considerable number were prosecuted jointly with the DER and some cases were referred to the DER for corrective action. One pollution incident can result in a large expenditure of a waterways patrolman's time. Finding the probable source, taking samples, counting dead fish, and prosecuting the case is no easy task. Division officers continue to investigate and review Encroachment Applications such as pipeline crossings, dam, sewer and bridge construction, and other projects which may adversely affect the waterways in the Commonwealth. Officers also made reviews of, and commented on, over 400 Mine Drainage Applications.

Law Enforcement personnel are still quite active in the Commission's lake and stream improvement programs and continue to cooperate with and assist the Youth Conservation Corps, sportsmen's clubs, and scout groups in installing and providing advice for the installation of lake and stream improvement devices.

The Law Enforcement Division continues to provide assistance to the other divisions of the Commission. One major activity is the stocking of various species of fish. District officers arrange for meeting the stocking truck, getting assistance from interested sportsmen, making landowner contacts, checking road conditions and other necessary details. Members of the Fisheries Management Section are assisted in their lake and stream surveys and an angler count survey on designated streams and lakes was conducted by division personnel.

Other activities are regular maintenance of assigned equipment such as automobiles and boats, assisting the Real Estate Division, Division of Engineering (especially maintenance personnel), and the Fisheries Environmental Services Branch. Waterways patrolmen are responsible for placing Aids to Navigation in waterways when and where required.

Division officers, as required and requested, assisted many state and federal agencies such as the Pennsylvania Game Commission, Pennsylvania State Police, DER, Army Corps of Engineers, EPA, United States Fish and Wildlife Services etc.

The division continued to maintain an active deputy system with approximately 550 commissioned part-time officers. The deputies, who provide their own uniforms, transportation, and work many hours without pay, were of great assistance to waterways patrolmen and provided many services to the fishermen and boaters of Pennsylvania.

WATERWAYS PATROLMAN PUBLIC APPEARANCES BY REGION

	FAIRS	SPORT SHOWS	SHOPPING MALLS	FISHING SCHOOLS	COLLEGE & UNIV. GROUPS	ELEMENTARY SCHOOLS	HIGH SCHOOL	CHURCH GROUPS	BOATING PROGRAMS	SCOUTS	RADIO PROGRAMS	TV PROGRAMS	SPORTSMEN CLUBS	CITY-COUNTY MEETINGS	CLUBS & ORGANIZATIONS	U.S. GOVT. MEETINGS	PA. GOVT. MEETINGS	MISCELLANEOUS	CANE POLE PROGRAM	SLIDE LECTURES	16mm FILMS
NORTHWEST	4	7	7	3	4	18	11	10	0	20	6	0	180	53	20	9	29	29	4	16	32
SOUTHWEST	2	2	7	1	1	5	8	3	11	11	38	4	115	29	15	6	8	12	1	30	17
NORTHCENTRAL	7	1	3	4	1	6	13	2	1	10	31	4	182	41	19	3	16	22	0	28	22
SOUTHCENTRAL	8	9	3	1	0	19	18	6	8	5	14	0	264	40	17	20	15	29	0	56	33
NORTHEAST	4	10	3	16	7	13	17	5	21	11	5	2	147	66	17	5	12	36	0	17	71
SOUTHEAST	2	15	9	5	6	24	18	3	10	11	4	9	171	25	24	4	15	27	3	38	43
TOTALS	27	44	32	30	19	85	85	29	51	68	98	19	1059	254	112	47	95	155	8	185	218



Participating in the distribution of fish is but one of the Waterways Patrolman's varied activities.

Watercraft Division

In January 1978, the Fish Commission assumed complete responsibility for boat registrations which had previously been handled by the Department of Revenue. This transfer necessitated the purchase of mail-handling and check-processing equipment which resulted in a modest capital expenditure of $26,050. This figure represents a one-time expenditure and no future capital investments are anticipated at this time. The computer processing necessary to handle such a large volume of information is provided by the Governor's Office, Computer Management Information Center (CMIC) under a contract arrangement. The first year program provided basic services needed to function efficiently. The next step will be to add programs which will increase the effectiveness of the operation, aid in data retrieval and provide information useful in determining the needs of the Pennsylvania boater. Difficulties were encountered during the initial shakedown/familiarization period but for the most part they have been surmounted. 187,000 boat registrations were processed, an increase of 6% over last year.

Eight new patrol craft were purchased for the Commission fleet and seven were phased out of service, bringing the total to 144 active craft. Of the eight new craft, three are 15-foot Alumacraft bass boats specially equipped with 55 HP Johnson outboards modified with jet units. These craft will see service on the Juniata, Susquehanna and Delaware Rivers. Another new type craft for us, a 20′ Mako fisherman, was equipped with a 175 HP Evinrude outboard and is now being used in Philadelphia County on the Delaware River. This craft provides much-needed flexibility and, along with the 27′ Silverton previously assigned there, makes for an extremely efficient unit.

The Capacity Plate Program, instituted in 1969, continues to provide boaters with information concerning the safe powering and loading of their vessels. There were 2,397 plates issued in 1978 bringing the total participating in the program to 29,770. Each year the number of plates issued continues to decrease, indicating that fewer and fewer boats are operating on Pennsylvania waters without capacity information. It is our goal to have capacity information displayed on every vessel in the state.



A total of 144 active craft make up the "fleet" which patrols our waterways.

BOATING SAFETY EDUCATION

The major vehicle for transmitting information to the boating public again this year was the very successful Mobile Education Van Program. Two vans equipped with pamphlets, safety equipment, slide shows and movies were manned full-time during peak boating season and part-time throughout the remainder of the year. So successful was the program that requests for the vans far outnumbered the number of days for which they were available. Locations for setting up the vans are chosen based on the anticipated number of persons attending the event or using the facility. Many smaller areas were turned down but whenever scheduling permitted they were also included. State Parks, marinas, sportsmen's functions and the main regattas are typical of the areas visited. 50,000 to 70,000 people were exposed to the message marketed by this program this year. New vans and AV equipment have been ordered for next year and it is expected that this program will be bigger and better than ever.

BOATING ACCIDENTS

Boating accidents were on the rise in 1978, with 85 accidents compared with 72 in 1977. This figure is still lower than 1976 in which year 100 accidents were reported. Personal injuries were up from 31 to 41 and property damage was in excess of $80,000.

Fatalities also were up this year with 27 boat-related deaths reported. 85% of these fatalities occurred in nonpowered craft: canoes, rafts, sailboats and low-powered fishing boats. The most common activity was canoeing/rafting, followed closely by fishing; alcohol was a known contributor in four deaths.

Indoors and out, the Mobile Van Education Program effectively presented the Commission's Boating Safety message.





Bureau of Fisheries & Engineering

GENERAL

A variety of projects were conducted by the Bureau during the past twelve months. Many of these efforts involved public participation, either in a supportive role, or, in the case of the Cooperative Nursery Program, by a substantial commitment of manpower and funds. All bureau programs have been designed to improve and enhance the public fishing and boating opportunities within the Commonwealth and the accomplishments during this period were due to the hard work and dedicated efforts of bureau personnel assisted by Commission personnel assigned to other activities.

The bureau looks forward with optimism to continued program success in future years.

Division of Engineering

It is the Division of Engineering's role to carry out the development, improvement and maintenance projects essential to the Commission's effort to meet the public need for recreational fishing and boating opportunities. Projects during the 1977–78 fiscal year included the modernization of hatchery facilities, the creation of new access areas on the Commonwealth's lakes and waterways and the maintenance of existing public use facilities such as access area, lake and stream improvements. Other ongoing responsibilities had to do with the protection and restoration of sports fishery habitat by means of stream improvement, rearing marsh and fishway development projects. Division expenditures for the fiscal year totaled $2,655,000. Funding was from the following sources: Fish Commission Fish Fund: 40%; Fish Commission Boat Fund: 24%; Commonwealth Land and Water Conservation and Reclamation Act (Project 500): 21%; Federal Aid in Sport Fish Restoration (D-J) and Anadromous fish Conservation Acts: 10%; and, Federal Land and Water Conservation Fund: 5%.

The two largest projects were improvements to the Commission's hatchery system, one at the Benner Spring Fish Cultural Station, Centre County, the other at the Pleasant Mount Fish Culture Station, Wayne County. A variety of lesser improvement projects were performed at other stations.

The reconstruction and renovation of the raceways, ponds, aerators, aqueducts and waste treatment facilities at the Benner Spring Station progressed, weather permitting, throughout the year. The project, begun in 1976 and being constructed entirely with the division's employees, is scheduled to be completed in 1980. The new production units will be used mainly for trout and esocid culture. The trout are destined for placement in public waters throughout 36 counties ranging east to Columbia County and west to Beaver County. The esocid fingerlings will be introduced into about 10 different public lakes each year, throughout the entire Commonwealth. The cost of the project, an estimated $1,600,000, is funded half by the Federal Heritage Conservation and Recreation Service (formerly Bureau of Outdoor Recreation) and half by a Commonwealth Project 500 grant. Another project at the station, the remodeling of the research building and the addition of a wing housing a "wet lab," was in the early planning and design stage. This latter project is estimated to cost $250,000 of which $50,000 will be funded by a Federal Commercial Fisheries Research and Development Act grant and the balance by a Commonwealth Project 500 grant.

In November, construction got under way on new fish production units, distribution lines and waste treatment facilities at the Pleasant Mount Station. The new structures will replace the station's existing works which were both physically deteriorated and technologically obsolete. When completed in 1979, the modern, efficient facilities will produce trout and esocids mainly for the public waters of eastern Pennsylvania. A Federal Economic Development Administration grant of $1,239,000 administered by the Department of General Services, is funding about 75% of the project's cost. The EDA grant represents a great savings in Commonwealth Project 500 monies which are funding the balance. The engineering was also begun for the renovation of four existing buildings and the development of two new buildings at the station. The new buildings will house hatchery operational and public visitation center facilities. This latter project, which is scheduled for construction in 1979 and 1980, will cost an estimated $575,000. Funding is expected to be shared between Federal Land and Water Conservation Act and Commonwealth Project 500 grants.

Other projects undertaken for various fish culture stations during the year were: The construction of warmwater fish rearing ponds, Union City Station, Erie County; installation of a new water supply line and the design of a new electrical distribution system, Pleasant Gap Station, Centre County; a facilities design study, Girard Salmon Station, Erie County; the modification of water supply lines and the preparation of equipment specifications, Huntsdale Station, Cumberland County; the repair of snow-damaged roofing, Van Dyke Shad Station, Juniata County; and, design studies for the improvement of hatchery buildings, Corry Station, Erie County.

Pennsylvania contains approximately 50,000 miles of waterways. For the last ten years, the Commission has had an intensive program to locate, procure and develop public access areas on those waters suitable for fishing and boating recreation. Under this program, in the past fiscal year, some fifty sites were investigated as possible future public fishing and/or boating access area locations. Those found to have the greatest potential are at: North Bend (a float trip "stop-over" point subsequently acquired) and Lock Haven, Clinton County; Lewisburg, Union County; Vosburg, Wyoming County; Exeter, Luzerne County, Danville, Montour County; Sunbury, Northumberland County (subsequently leased); Speeceville, Middletown Borough, and Highspire, Dauphin County, all on the Susquehanna River and its branches; Allegheny River State Park (a primitive "stop-over" point subsequently leased), Venango County; West Monterey, Clarion County; Tarrtown, Armstrong County; all on the Allegheny River; Frankford Arsenal Annex, Frankford Arsenal, Fort Mifflin, Philadelphia, and Chester Creek, all on the Delaware River; Lewistown, Juniata River, Mifflin County; City of Erie, Lake Erie; City of Pittsburgh, Mongahela River; and, Mahoning Creek Lake, Armstrong County.

The surveying of property lines and topography and/or engineering of facilities was completed or in progress for the following proposed future access areas: West Falls, North Branch of the Susquehanna River, Wyoming County; Halifax, Susquehanna River, Dauphin County; Good Hope, Conodoguinet Creek, Cumberland County; Silkworth Lake, Luzerne County; Koon and Gordon Lakes and Breezewood, Raystown Branch of the Juniata River, Bedford County; State Line, Twenty Mile Creek, and Lake Erie, Erie County; Glasgow, Little Beaver Creek tributary to the Ohio River, Beaver County; Elizabeth Township, Youghiogheny River, Allegheny County; and, Tidioute Warren County; Applewold and Rosston, Armstrong County; and, Springdale, Allegheny County, all on the Allegheny River.

The construction was completed and facilities opened to the public at four new areas: Brady's Bend Access Area, Allegheny River, Armstrong County, consisting of a paved parking lot for 38 cars and 84 cars with boat trailers and a boat launching ramp. Development cost of this



The newly renovated and expanded Stackhouse School and Administration Building in Centre County.

project was $71,600 and was shared by Fish and Boat Funds and Federal Dingell-Johnson (D-J) Act Funds; Bessemer Quarry Lake Access Area, Lawrence County, consisting of a paved parking lot for 17 cars and 16 cars with boat trailers, and a boat launching ramp for an estimated development cost of $58,000, shared by Fish and Federal D-J Funds; Mahantango Access Area, Susquehanna River, Snyder County, consisting of a paved parking lot for 27 cars and 15 cars with boat trailers and a boat launching ramp, for an estimated development cost of $42,000, shared by Fish and Boat Funds and Federal D-J funds.

In addition to the development of new areas, major projects were undertaken for existing areas: Keystone Lake, Armstrong County, surveying, designs and preparation of specifications for the future improvement and expansion of the lake's access system; Walnut Creek Access area, Lake Erie, Erie County, installation of shoreline protection groins, designs and preparation of specifications for construction of a multi-purpose building; Oil City Access Area, Allegheny River, Venango County, installation of flush-type public comfort station; Meadow Grounds Lake, Fulton County, regrading and resurfacing over a mile of access road; Colyer Lake, Centre County, reconstruction of west shore boat boarding dock; Goldsboro Access Area, Susquehanna River, York County, surveying, design and specifications for future expansion of parking and boat launching facilities; City Island Access Area, Susquehanna River, Dauphin County, regrading and resurfacing existing parking lot and access road, planning for future cooperative development of the area with the City of Harrisburg; Levittown Lake, Bucks County, regrading and paving of the launch ramp and turnaround; Bristol Access Area, Delaware River, Bucks County, preliminary design for future improvement of access facilities; and, Lake Wallenpaupack, Wayne County, design and specifications for future expansion of access facilities.

The division also undertook projects for other Commission programs. It began the renovation and expansion of the Stackhouse School and Administration Building at Fisherman's Paradise, Centre County. The cost of this improvement is being shared by Fish and Boat Funds. In-service training seminars are held at this centrally located facility for the Commission's statewide force of law enforcement, fisheries, construction, maintenance, and administrative personnel. In November 1977, the City of Philadelphia started construction of a $425,000 concrete fishway over the Fairmount Park Dam on the Schuylkill River. The division is the official design engineer for the project and is furnishing required professional supervision for the construction phase of that project. The fishway should be completed in time to handle the Spring 1979 shad run. Similarly, Division of Engineering staff designed an esocid rearing marsh and prepared plans and specifications for the U.S. Army Corps of Engineers to incorporate into their Blue Marsh impoundment construction project in Berks County.

Because so much construction intrudes upon waterways that provide fish habitats, the Commission, through the Division's Fisherics Environmental Services Branch, advises on all permits issued for such work by other commonwealth and Federal agencies. During the year, it reviewed, making recommendations when necessary, a total of: 661 Department of Environmental Recources dams and encroachment permit applications; 480 mine drainage permit applications; 749 Corps of Engineers public notices; 132 plans of DER stream improvement projects; 286 sets of highway plans; 234 Environmental Protection Agency public notices; 1,207 State Clearinghouse projects, 1,455 DER permits; 19 Delaware River Basin Commission projects; and, 7 Soil Conservation Service projects.

The branch's overall responsibility is to promote and encourage the protection and improvement of habitat for aquatic life in all streams and lakes. Therefore, in addition to its permitting responsibilities, the branch participates in the planning and supervising of stream or fish habitat improvement projects. Because of the manpower provided by Federal employment programs such as CETA, YCC and YACC the volume of stream improvement work increased greatly during the year. In FY 77–78, the branch worked with approximately 55 separate groups, 15 of which were volunteer conservation groups, i.e., sportsmen's clubs, Boy Scout troops, etc., the rest federally funded, to construct 243 stream deflectors, 64 channel blocks, 7 sections of cribbing, 12 mud sills and 30

jack dams.

The branch was called upon to present and defend the Commission's interests at numerous and various public hearings, field inspections and conservation meetings held all over the state on a wide range of environmental problems. Dealt with on a case basis, they concerned: erosion and siltation control; highway relocations; the effects of a proposed U.S. Steel plant on Lake Erie and its tributary streams; sewer line installations; flood control measures; the effects of a proposed hydropower plant on Raystown Lake; strip mine reclamation; sanitary landfills; channel relocations; and, Johnstown's post-flood emergency work. Additionally, the branch set up and operated the PFC's displays at the 1977 BSA Jamboree in Moraine State Park and the Fishing Expo '78 in Wilkes-Barre and provided instruction at in-service and other training seminars.

The ownership of facilities carries with it the obligation for their maintenance. The maintenance of the Commission's statewide system of public use facilities, along with various operational units is performed by five regionally headquartered maintenance crews belonging to the Engineering Division. The facilities maintained include 238 individual public fishing and boating accesses, 37 of which are cooperatively maintained under agreements with local municipalities or other organizations, all or parts of 56 lakes owned or controlled by the Commission and 17 public fishing stream segments. The crews also performed the routine maintenance at 3 law enforcement regional offices, 2 area fisheries managers offices, 2 salmon weirs and, from time to time, assisted in the maintenance and operations of the Commission's fourteen fish cultural station complexes and four propagation lakes. Typical winter work includes snow plowing at those accesses used by ice fishermen, repairing headquarters facilities, overhauling vehicles and off-road equipment, and sign painting and repair. About 20% of the division's budget was spent on maintenance this year, with $155,408 coming from the Boating Fund and $386,281 from the Fish Fund. Of the latter, approximately $185,000 will be reimbursed by a Federal D-J Act grant.

The division's work force for the year totaled 92 people, of which 68 held full-time and 24 part-time seasonal positions. At years end, 21 full-time and 3 part-time were assigned to maintenance functions; 22 full-time and 19 part-time to construction functions; 3 full-time to environmental services functions; and, 22 full-time and 2 part-time to engineering, surveying, and administrative functions. The division continues to operate with a reduced work force, its total having decreased by 5 people in the past two years.

Division of Fisheries

FISHERIES MANAGEMENT

Excellent progress has been made on the catchable trout waters phase of the inventory and classification program. This phase of the inventory should be completed in two of the eight Fisheries Management Areas by the end of 1978 and it appears that all but Area 3 will be completed by the end of 1980. Area 3, the northcentral, has more trout waters than any of the other areas and they probably will not be completely inventoried until late 1981. During this fiscal year, inventory examinations were conducted on 154 streams. The survey reports for 1976 and 1977 field work were reviewed by Coldwater Unit staff and forwarded to a consultant for keypunching onto computer cards. Thus far, 400 streams, representing about 2,100 miles of water, have been inventoried. To date, approximately 46% of the stocked trout water in Pennsylvania has been inventoried. Also, an angler and boating use evaluation was initiated with the cooperation of law enforcement personnel and the information gained from this user evaluation will be incorporated into the classification program.

A number of special studies dealing with trout were carried on during the fiscal year. These included a continuing analysis of the effect of habitat improvement on the Falling Spring Branch in Franklin County; a continuation of the monitoring of the trout population in the trophy trout management area of Big Spring Creek, Cumberland County; continuation of the long-term study of fish population in an artificial stream channel, Blockhouse Creek, Lycoming County; and the third year of efforts to establish smelt for forage and sport fishing in several lakes.

A comprehensive approach to inventorying and managing warmwater fisheries was initiated during this fiscal year. This project was approved for federal aid in funding by the Dingell-Johnson program. This new approach to warmwater management is designed to provide a factual basis for management by resource category. In addition to standardized inventory surveys, a number of individual warmwater-coolwater studies were initiated to provide



Electrofishing aids greatly

information necessary for better fisheries management. These included a cooperative study with Clarion State College and the Pennsylvania Federation of Bass Anglers Sportsmen Society to evaluate the effects of angling use and harvest of largemouth bass in Kahle Lake, Clarion County; evaluation of the reproductive success of channel catfish and walleye in Somerset Lake, Somerset County; evaluation of alewives as forage for largemouth bass in Colyer Lake, Centre County; evaluation of striped bass in Lake Raystown, Huntingdon County; and comparison of naturally reproducing walleye populations and populations maintained by different stocking techniques.

Fisheries Management staff have devoted considerable time and effort toward redirection of the migratory fish restoration effort on the Susquehanna River. Relicensing of the Conowingo Hydroelectric Project has become the focus of attention as fish passage at this dam is vital to restoration efforts. Staff have also been involved in efforts to restore anadromous fish runs in the Schuylkill River, and the first fishway, at Fairmount Dam, is scheduled for completion late in 1978. Staff also participated in a cooperative state-federal project to maintain and enhance shad runs on the Delaware River and to develop a long-range management plan for all fish species in the boundary waters of the Delaware River.

The reptile, amphibian and endangered species programs have progressed well during this fiscal year. Cooperative interagency agreements have been developed and guidelines and objectives for protection of these little recognized resources



he inventorying and classifying of catchable trout waters.

have been established. Experts in the fields of herpetology and ichthyology have been appointed to serve on advisory boards to assist Commission staff in developing programs. The first meeting of the Herpetology Advisory Committee and the Advisory Committee on Fishes were held. Items considered in these programs included status of the timber rattlesnake and the massasauga; recommendations for the conduct of reptile hunts and safe handling of venomous snakes; recommendations for protection of amphibians and reptiles on state land; revision of the checklist of Pennsylvania fishes; development of a list of endangered, threatened and status indeterminate fishes, amphibians and reptiles; and, formulation of a new policy on Scientific Collector's Permits.

Fisheries Management staff also devoted considerable time to: water quality standards and land use planning activities in conjunction with DER's Bureau of Water Quality Management; issues related to pesticides such as aquatic herbicide application permits and participation on the Pesticide Advisory Board; hearings involving the fisheries resource and/or water quality; public relations and educational activities; and participation in professional and technical meetings and symposia on subjects relevant to Commission programs.

FISHERIES RESEARCH

Activities of the Fisheries Research Section during this fiscal year included diagnostic pathology, shad rearing, studies of ultraviolet light in hatcheries, research on whirling disease, studies of artificial diets for tiger muskellunge, work with Amur pike, research on hatchery effluent, work with discharge permits for Commission facilities, and water quality analysis. All staff of the Research Section are headquartered at the Benner Spring Fish Research Station in Centre County.

Some of the most significant activities were:

Diagnostic Pathology — The pathology staff conducted a total of 302 investigations during the 1977–78 fiscal year. The most frequently diagnosed problems, in order of prevalence, were: bacterial gill disease, furunculosis, bacterial hemorrhagic septicemia, external parasites, and IPN virus. Other problems encountered included gas bubble disease, ammonia toxicity, environmental stresses and dietary deficiencies.

Shad Rearing — The anadromous fish research project at Van Dyke, Mifflin County, was once again carried out by Research Section staff. More than 14 million shad eggs were received at Van Dyke during the spring of 1978. A total of 3,046,396 shad were released into the Susquehanna River drainage, 3,011,886 fry and 34,510 fingerlings.

Ultraviolet Light — A research study was initiated at the Tionesta and Union City hatcheries to determine the effectiveness of ultraviolet irradiation of water in destroying pathogenic bacteria and assess the benefits of such treatment to fish production. Favorable results were obtained with chinook salmon at Tionesta and with northern pike at Union City.

Whirling Disease — A federally sponsored whirling disease project was completed. This study was designed to: determine the effects of whirling disease contamination on wild fish in areas downstream of contaminated hatcheries; determine if the parasite has become established in wild trout populations where infected fish have been stocked; and assess the levels of susceptibility to whirling disease of the different species of trout and salmon. The results indicated that fish in streams receiving effluent from a contaminated hatchery did become infected, that stocked fish could infect wild fish, that brown trout, lake trout and coho salmon were very resistant to whirling disease, and that brook trout and rainbow trout were very susceptible to infection.

Coolwater Dry Diet — A federally funded project was undertaken to study the effects of feeding several dry, milled feeds to tiger muskellunge. Growth and survival were evaluated for different diets under different fish densities and different feeding schedules.

Effluent Research — This is a continuation of federally funded research on treatment of discharges from fish hatcheries. The effluent wastewater systems at four hatcheries — Big Spring, Oswayo, Pleasant Gap, and Tionesta — were evaluated. Sludge composition and rate of accumulation and effluent water quality were studied. (Sludge studies were also conducted at the Fairview Hatchery.) Sampling was done on a monthly basis.

Permit Work — Fish cultural stations which received DER industrial waste or sewage treatment permits prior to or during the 1977–78 fiscal year were Big Spring, Huntsdale, Oswayo, Pleasant Gap, Fairview, Reynoldsdale, Spring Creek, and Tionesta. Federal discharge permit (NPDES) applications for all Commission hatcheries have been submitted to the EPA regional office in Philadelphia.

Water Quality Laboratory — During the 1977–78 fiscal year, 1,045 samples were submitted to the water quality laboratory for analysis. The total of physical, chemical, and bacteriological tests performed, 8,273, would have cost approximately $62,000 if the Commission had to depend on commercial laboratories for these services.

COLDWATER PROPAGATION SECTION

The Coldwater Propagation Section includes all trout rearing activities in Commission hatcheries and the Cooperative Nursery Branch.

Fish Commission Hatcheries — Commission hatcheries stocked 1,834,541 pounds of trout, including 4,646,176 adult

trout averaging 9.34 inches in length and 2,716,404 trout fingerlings. This production was achieved despite construction and renovation at the Benner Spring Station. Following stocking, all trout rearing at the Pleasant Mount Station was phased out until construction of new raceways and other facilities is completed. Nine fish cultural stations contributed to the trout stocking effort.

The Commission's Lake Erie salmon program continued. Major contributions to this program were made by the Fairview Station and outlying rearing areas in Erie County, by the Linesville Station, and by the Tionesta Station. Emphasis was on smolt production; a total of 970,744 coho and 572,000 chinook were released into Lake Erie tributaries and Presque Isle Bay.

Cooperative Nursery Branch — Cooperative Nursery Branch files show that 140 organizations were sponsoring 154 coldwater and 4 warmwater units within 48 counties. Five Commission fish cultural stations furnished 1,061,510 salmonid fingerlings — 377,650 brook, 261,800 brown, 420,650 rainbow, and 1,410 palomino rainbow. In addition, 114,000 eyed brook trout eggs and 17,000 eyed brown trout eggs were furnished to trout units and 13,000 largemouth bass fry and 9 quarts of daphnia were furnished for warmwater units.

Trout were released in 648 waters within 52 counties — 501,822 were released in 280 Commission stocked waters and 338,574 in 368 water areas not stocked by the Fish Commission. Of the 840,396 catchables stocked, 293,408 were brook trout, 200,100 were brown trout, 327,274 were rainbow trout, 10,614 were palomino rainbow trout, and 9,000 were steelhead trout. The projected weight of these fish was 346,747 pounds.

Warmwater fish were released in 11 water areas in 4 counties. Included in the release were 6,328 largemouth bass, 1,421 sunfish, 3,465 yellow perch and 225 bullheads.

WARMWATER PROPAGATION SECTION

The Warmwater Propagation Section produced a variety of fry, fingerling, and adult fishes in response to requests by Fisheries Management staff. Warmwater Propagation staff cooperated with Fisheries Research in evaluating ultraviolet light's role in production of northern pike and in studies of various diets and rearing techniques for tiger muskellunge. Despite adverse weather conditions and abnormal spawning patterns, the Warmwater Propagation staff was able to produce adequate walleye, northern pike, and muskellunge eggs to meet all requirements. This exceptional feat, based on the experience of other state agencies during the same period, was due to a highly skilled, well-trained and observant fish cultural staff.

The results of propagation efforts of all Fish Commission fish cultural stations are summarized in the accompanying table.

FISH STOCKED BY STATE HATCHERIES ONLY DURING FISCAL YEAR JULY 1, 1977 TO JUNE 30, 1978

	FRY	FINGERLING		ADULT		GRAND TOTAL	
SPECIES	Number	Number	Weight	Number	Weight	Number	Weight
TROUT							
Brook Trout		667,840	22,896	973,425	354,831	1,641,265	377,727
Brown Trout		980,300	24,595	1,520,335	569,861	2,500,635	594,456
Rainbow Trout		1,017,450	42,451	2,080,406	791,533	3,097,856	833,984
Palomino Rbw. Trout		3,140	134	38,084	21,162	41,224	21,296
Lake Trout		26,674	1,025	14,526	3,239	41,200	4,264
Steelhead Trout		21,000	954	19,400	1,860	40,400	2,814
TOTAL TROUT		***2,716,404***	***92,055***	***4,646,176***	***1,742,486***	***7,362,580***	***1,834,541***
SALMON							
Coho		970,744	56,299			970,744	56,299
Kokanee							
Chinook		572,000	1,584			572,000	1,584
TOTAL SALMON		***1,542,744***	***57,883***			***1,542,744***	***57,883***
GAMEFISH							
Chain Pickerel	8,000	4,378	683			12,378	683
Largemouth Bass	55,000	6,450	106			61,450	106
Muskellunge		234,072*	12,941 (*Tiger Muskellunge 170,183)		10,620	234,072	12,941
Northern Pike	250,000	25,350	1,721			275,350	1,721
Smallmouth Bass							
Walleye	26,495,000	265,109	1,888	4,477	8,091	26,764,586	9,979
American Shad	3,011,886	44,510	78			3,056,396	78
TOTAL GAMEFISH	***29,819,886***	***579,869***	***17,417***	***4,477***	***8,091***	***30,404,232***	***25,508***
PANFISH							
Black Crappie		58,150	783	5,665	5,189	63,815	5,972
Bluegill				4,802	2,048	4,802	2,048
Brown Bullhead				15,163	10,812	15,163	10,812
Carp				2,000	6,800	2,000	6,800
Channel Catfish							
Eels							
Rock Bass							
Redear Sunfish							
Sunfish (Common)							
White Crappie							
Yellow Bullhead							
Yellow Perch		257	19	2,777	1,079	3,034	1,098
TOTAL PANFISH		***58,407***	***802***	***30,407***	***25,928***	***88,814***	***26,730***
FORAGE FISH							
Alewife							
Fathead Minnow							
Golden Shiner		29,000	290			29,000	290
TOTAL FORAGE FISH		***29,000***	***290***			***29,000***	***290***
GRAND TOTAL	***29,819,886***	***4,926,424***	***168,447***	***4,681,060***	***1,776,505***	***39,427,370***	***1,944,952***



Anglers and boaters gain new access to prime waters each year through the Real Estate Division's continuing land acquisition efforts.

Bureau of Administrative Services

The increased interest in fishing, boating and other water sports has placed ever-increasing pressure on the Pennsylvania waterways and all bureaus of the Pennsylvania Fish Commission.

The Pennsylvania Fish Commission continued during this fiscal year to maintain all of its programs and activities at the level of the last fiscal year.

The growing interest in fishing and boating was reflected in the number of fishing licenses issued during the past license (calendar) year. Licenses sales exceeded 1,005,163 which established a new record. This record increase in sales was established in all categories of licenses: resident, senior resident, nonresident and tourist.

The Bureau of Administrative Services devotes most of its efforts to the administrative operation of the Commission. The bureau coordinates and implements, through the other bureaus, the total Commission service functions.

The bureau's operations include such services as budgeting and fiscal planning, personnel and payroll, land and water acquisition, federal aid coordination, issuance of fishing licenses, training, automotive and communication services, purchasing and warehousing, mail processing, affirmative action, inventory records, central files, messenger service, and other housekeeping activities required in the every day operations of the Pennsylvania Fish Commission.

LAND & WATER ACQUISITION

Besides the many investigations made on numerous properties throughout the state being considered for acquisition, the personnel of this small division perform a wide variety of work. Property management, an intricate and time consuming activity of the Real Estate Division, includes involvements such as collecting and processing monthly rentals from Commission dwellings, rights-of-way, timber management, private encroachment upon Commission lands, vector control, vandalism and a host of others.

A recital of this kind can give the reader only a general idea of the Real Estate Division's role in the Fish Commission's many activities.

In land acquisition work, four additional tracts of land have been obtained: North Bend Access, access to the Susquehanna River, Clinton County; Pleasant Mount Fish Cultural Station, additional land, Wayne County; Hunter's Lake, exchange of lands, Sullivan County; and Lewistown Bypass, access to the Juniata River, Mifflin County.

Cooperative Lease Agreements:

Sweet Arrow Lake, Schuylkill County (renewal), with Borough of Pine Grove, fishing and boating access; Laurel Run Reservoir, Elk County, with St. Marys Area Joint Water Authority, fishing access; Sunbury Access, Northumberland County, with DER, fishing and boating access; Allegheny River State Park, Venango County, primitive fishing and boating access; Mahoning lake, Armstrong County, with Armstrong County Board of Commissioners, maintenance; Harris Pond, Luzerne County, with Ross Township Supervisors, maintenance agreement.

Cooperative Agreements Where Negotiations Have Been Initiated:

Harrisburg, Island Park, access to the Susquehanna River, Dauphin County; Erie, East Side Marina, access to Lake Erie; Pittsburgh, access to the Monongahela River, Allegheny County.

Miscellaneous Agreements Completed:

Boat Registration and Watercraft Division Offices, Harrisburg; Fish Commission's Southeast Maintenance Headquarters, Lebanon County; Gateway Clipper, Allegheny County; Hereford Manor, Beaver County, Commission dwelling lease; Ingham Springs, Bucks County, Commission dwelling lease; Raystown Lake, Huntingdon County, with Department of the Army, support to the fish management program, and others.

Access Areas Under Various Stages of Acquisition:

Rosston, access to Allegheny River, Armstrong County; Breezewood, access to Juniata River, Bedford County; Danville, access to Susquehanna River, Montour County; Appletree Road, access to North Branch of the Susquehanna River, Luzerne County; West Falls (additional land), access to North Branch of the Susquehanna River, Wyoming County; Tacony Access, access to Delaware River, Philadelphia; Gravel Pits, fishing access, Erie County; Halifax, access to the Susquehanna River, Dauphin County.

Right-of-Way Licenses: Piney Springs, Blair County, with Rural Valley Electric; Falmouth Access, Lancaster County, with private property owner; Donegal Lake, Westmoreland County-2; one with West Penn Power Company and one with Four Mile Run Corporation.

In addition to the above, the following were processed: Forty-three fish habitat improvement project agreements; twelve boat storage agreements, and some wired areas and nursery waters agreements.

More than seventy-five potential access site investigations were conducted in twenty-four counties.

SAND & GRAVEL ROYALTIES

The Pennsylvania Fish Commission received $267,646.44 in royalty payments from dredging companies operating in Commonwealth waters during the 77–78 fiscal year. This amount reflects an increase of $59,206.59 over the previous fiscal year which can be principally attributed to a more efficient method of depositing income on a monthly basis. Cumulative receipts since the passage of Act 225 (Fiscal 70–71) amount to $2,013,425.56. A decline of this revenue source is anticipated in future years, due to the phase out of dredging on the upper Allegheny River ordered by the Department of Environmental Resources.

MISCELLANEOUS LICENSES & PERMITS

The Miscellaneous License and Permit Section reviewed and issued the following:

Transportation Permits	84
Live Bait Dealer's Licenses	567
Artificial Propagating Hatcheries	171
Regulated Fishing Lake Licenses	268
Scientific Collector's Permits	221
Drawdown Permits	115
Dynamite Permits	20

PERSONNEL

The following are the accomplishments of the Personnel Office during this fiscal year:

Labor Relations: Participated in negotiations for a Commonwealth Master Agreement and in Fish and Game Law Enforcement Unit negotiations. Implemented a computerized seniority listing which will be automatically updated every six months. Completed a revised work disruption plan.

Classification: Conducted a comprehensive job analysis study to support age requirements for the Waterways Patrolman classification. Coordinated the development of work standards for the Fish Culturist II classification. New specifications were prepared for four classes of positions.

Employment: Proposals were sent to CETA prime sponsors resulting in approval of grants totaling $77,000.00 for temporary employes in Centre and Cumberland Counties. Coordinated the agency participation in the YACC program which provides funding through September 1979 for $207,000.00.

Special study reports were made of performance evaluations, accidents, and unemployment compensation.

Training: Coordinated a seminar in state purchasing procedures.

Personnel Transactions: 1609 transactions were processed.

Benefits: 11 individual retirement counseling sessions were held. Two group meetings were held to discuss benefits. 347 matters involving benefits were handled.

The average salary filled complement during the year was 414. This is a reduction of 2 positions from the previous fiscal year despite the addition of 5 boating registration positions that were transferred from the Department of Revenue. For permanent positions, 20 appointments, 21 separations, and 19 promotions/reclassifications occurred.

FEDERAL AID

The section on Federal Aid Coordination prepared and presented nine new projects* and nine new project segments to existing projects** during the year ended June 30, 1978. Total Federal reimbursements and grants for the year were $1,032,736.68. Total reimbursements were distributed as follows:

Fish Fund	$707,013.88
Boat Fund	168,388.00
Project "500" Fund	157,334.80
Total	$1,032,736.68

Documentation was executed during the year on the following existing and new projects:

	Planned Cost	*Anticipated Reimbursement*
Anadromous Fish Act		
**Coho (AFS-5-7)	$280,550.00	$140,275.00
**Brandywine Shad Study (AFSC-4-9)	750.00	500.00
**Delaware River Research (AFS-2-12)	5,000.00	-0-
	$286,300.00	$140,775.00
Fish and Wildlife Restoration (D-J)		
**D-J Maintenance (F-30-D-13)	$270,120.00	$202,590.00
*Warmwater Fisheries Management (F-57-R-1)	310,128.00	232,596.00
*Mahantango Access Area (F-58-D-1)	42,000.00	15,750.00
	$622,248.00	$450,936.00
Commercial Fish Act		
**Commercial Effluent Study (3-242-R-4)	$59,565.00	$44,673.75
**Commercial Fish Study, Lake Erie (3-284-R-2)	57,280.00	42,960.00
	$116,845.00	$87,633.75
Federal Land & Water Conservation Fund (HC&RS)		
**Statewide Outdoor Recreation Plan—Update—Phase III — (42-00382)	$170,000.00	$85,000.00
*Benner Spring Fish Cultural Station Construction and Renovation (42-00456) (Stages II & III)	220,900.00	110,450.00
*Walnut Creek Access — Multipurpose Building (42-00547)	250,000.00	125,000.00
*Springdale Access Area (42-00557)	88,000.00	44,000.00
*Elizabeth Township Access Area (42-00567)	56,800.00	28,400.00
	$785,700.00	$392,750.00
U.S. Department of Transportation (U.S. Coast Guard Grant)		
**Boating Safety Program (1801-42)	$168,338.00	$168,338.00
	$168,388.00	$168,388.00
Fish and Wildlife Act of 1956		
**Coolwater Diet Test Study (Contract 14-16-0009-78-036)	$33,400.00	$33,400.00
	$33,400.00	$33,400.00
Comprehensive Employment and Training Act (CETA)		
*Centre County (Contract 38-533-367)	$57,960.00	$57,960.00
*Erie County (Grant Number P-60-77-82)	72,181.00	72,181.00
*Wayne/Potter Counties (Grant Number 42-7-029-21)	19,339.78	19,339.78
	$149,480.78	$149,480.78
GRAND TOTALS	$2,162,361,178	$1,423,463.53

Comptroller's Office

The Fish Fund balance as of June 30, 1978, totaled $5,460,621.83. This figure represented a decrease of $258,806.63 from the previous fiscal year.

Total revenue received amounted to $8,943,099.02, a decrease of $81,313.26 from the previous fiscal year. This was due primarily to a slight decrease in resident fishing license sales.

Expenditures and commitments during the 1977–78 fiscal year totaled $9,312,008.77. This figure represents an increase of $557,741.44 over the previous fiscal year, due mainly to increased salaries, wages and employe benefits. Operating expenses continued to reflect the inflationary trend and increased by approximately $70,000 over the previous year. Fixed asset costs were approximately $19,000 less as a result of budgetary cutbacks made by the Commission.

As indicated above, the Fish Fund balance decreased from the previous year by $258,807. It is anticipated that this decrease is the beginning of a downward trend which will find the Fish Fund in a very critical financial situation within the next year or two. Our current revenue sources are levelling off as evidenced by the levelling off in resident fishing license sales this past year. The cost of operations continues to increase at an ever-increasing rate, fueled by spiraling inflation, averaging approximately 9% a year. Also, a recently approved collective bargaining agreement between the Commonwealth and the employee's union, will cost the Fish Commission a total of $1,300,000 additional for the next three-year period. The impact of these factors will severely impair the ability of the Fish Commission to maintain current operations. Without additional revenue forthcoming within the next three (3) years, the Commission's programs will have to be curtailed sharply.

The results of operations for the Boating Fund for the 1977–78 fiscal year indicate a net operating increase of $210,936.10, which brings the amount available for commitment and expenditure as of June 30, 1978, to $4,039,272.01. Receipts totaled $2,286,875.87, which was $81,892 higher than the previous year due mainly to an increase in boat registration fees. Expenditures and commitments totaled $2,307,676 which represented an increase of $294,487 over the previous fiscal year. The increase in expenditures was due mainly to the Watercraft Division (Boating Services) assuming the responsibility of issuing boat registrations (formerly the responsibility of the Department of Revenue). Also, the cost of engineering was higher as a result of large purchases of stone and concrete for the construction of access roads. Personnel costs of overall general operations were approximately $200,000 higher than the previous year.

The Boating Fund financial position continues to be favorable. The fund balance is now over $4,000,000, the highest point reached to date. Cost of operations continues to climb with the strong possibility of the fund leveling off within the next year or two.

EARMARKED FUNDS

Act 458, Session of 1963, printed under Section 290 of the Fish Law, provides that the sum of fifty cents (50¢) from each resident and nonresident fishing license fee, senior licenses excluded, be expended for "(1) the acquisition, leasing, development, management and maintenance of public fishing waters and of areas for providing access to fishing waters and the carrying out of lake and stream reclamation and improvement; (2) the rebuilding of torn out dams; and (3) the study of problems related to better fishing, but in no event shall any of the funds be used for propagation of trout." In order to meet this requirement of the Fish law, a minimum expenditure of $482,500.00 for the above stated purposes was necessary. Actual expenditures were $1,765,251.15, resulting in the Fish Commission spending $1,282,751.15 more than the required minimum for these activities during the fiscal year.

The Project 500 is a statewide bond issue passed by the legislature in 1968 for the conservation and reclamation of the land and water resources of the Commonwealth. During the 1977–78 fiscal year, the Fish Commission expended $743,856.49, while commitments were $790,576.26 less than at the end of the previous fiscal year, resulting in a cumulative total of $20,674,847.31 expenditures and commitments to date from the inception of the Project 500 Fund.

FISH FUND — ***AMOUNT AVAILABLE FOR COMMITMENT & EXPENDITURE***		***JUNE 30, 1978***
Amount Available for Commitment and Expenditure, July 1, 1977		$5,719,428.46
Plus: Prior Year Adjustment — Cancellation of Prior Commitments		110,103.12
Adjusted Amount Available, July 1, 1977		$5,829,531.58
Results of Operations — 1977–78 Fiscal Year:		
Total Revenue Received	$8,943,099.02	
Less: Expenditures and Outstanding Commitments	9,312,008.77	
Net Operating Decrease		368,909.75
Amount Available for Commitment and Expenditure, June 30, 1978		$5,460,621.83

BOATING FUND		***JUNE 30, 1978***
Amount Available for Commitment and Expenditure, July 1, 1977		$3,828,335.91
Plus: Prior Year Adjustment — Cancellation of Prior Commitments		231,736.19
Adjusted Amount Available, July 1, 1977		$4,060,072.10
Results of Operations — 1977–78 Fiscal Year:		
Total Revenue Received	$2,286,875.87	
Less: Expenditures and Outstanding Commitments	2,307,675.96	
Net Operating Decrease		20,800.09
Amount Available for Commitment and Expenditure, June 30, 1978		$4,039,272.01

FISH FUND REVENUE
Deposited July 1, 1977, to June 30, 1978

Resident Fishing Licenses — Regular	$6,290,444.56
Resident Fishing Licenses — Senior	158,851.50
Nonresident Fishing Licenses	522,532.00
Tourist Fishing Licenses	121,492.50
Other Licenses — Commercial Hatcheries, Private Lake Fishing Fees, etc.	25,061.50
Federal Aid for Fish Restoration, Research, and Development	707,013.88
Interest on Securities and Deposits	294,680.96
Income from Sand & Gravel Dredging	267,646.44
Fish Law Fines	148,284.10
Pennsylvania Angler Subscriptions and Sale of Publications	130,856.02
*Other Revenue	88,178.80
In-Lieu Payments of Erection of Fishways	75,000.00
Contributions for Restocking Streams	51,364.21
Sale of Used Autos and Other Vehicles	34,925.00
Rental of Fish Commission Equipment	26,767.55
TOTAL REVENUE	***$8,943,099.02***

*Other Revenue consists of refunds of prior year expenditures, sale of unservicable property, services and inspection agreements using Fish Commission personnel, gas and oil royalties, etc.

FISH FUND REVENUE—$8,943,099.02

Resident Fishing Licenses	72.1%
Federal Reimbursements	7.9%
Nonresident & Tourist Fishing & Other Licenses	7.5%
Interest Income	3.3%
Income from Sand and Gravel Dredging	3.0%
Fish Laws Fines	1.7%
Sale of Publications	1.5%
Other Revenue	1.0%
In-Lieu Payments of Fishways	.8%
Equipment Rental, Sale of Vehicles	.6%
Contributions	.6%
	100.0%



FISH FUND — EXPENDITURES & COMMITMENTS BY DIVISION

Executive Office	$99,048.54
Comptroller Services	129,372.70
Administrative Services	712,935.18
Land and Water Acquisition	117,135.00
Information & Education	391,920.20
Legal Services	17,532.12
Propagation	3,966,221.46
Research	263,415.45
Fisheries Management	614,255.77
Engineering and Development	886,419.77
Environmental Services	84,528.83
Maintenance	386,282.35
Law Enforcement Services	1,580,808.53
Fish Fund — General Operations — Total	$9,249,875.90
Department of General Services — General State Authority Rentals	62,132.87
TOTAL	***$9,312,008.77***

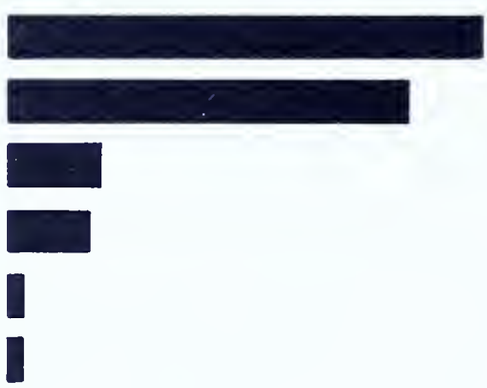
BOATING FUND REVENUE
Deposited July 1, 1977, to June 30, 1978

*Transfer from Motor License & Liquid Fuels Tax Fund	$1,011,935.88
Motorboat Registration Fees	845,776.00
Interest Received on Securities	198,643.91
U.S. Coast Guard Grant for Boating Safety Program	168,388.00
Motorboat Fines	31,511.75
Issuance of Capacity Plates for Boats, Mooring Permits, etc.	30,620.33
TOTAL REVENUE	***$2,286,875.87***

*Act 65, Session of 1931, as amended March 12, 1957, provides for an annual transfer to the Boating Fund, the amount of the liquid fuels tax paid on liquid fuels consumed in the propulsion of motorboats and other motorcraft on the waters of the Commonwealth, including waterways bordering on the Commonwealth.

BOATING FUND REVENUE—$2,286,875.87

Transfer from Motor License and Liquid Fuel Tax Funds	44.2%
Motorboat Registration Fees	37.0%
Interest Income	8.7%
U.S. Coast Guard Grant for Boating Safety	7.4%
Motorboat Fines	1.4%
Other Sources	1.3%
	100.0%



BOATING FUND — EXPENDITURES & COMMITMENTS BY DIVISION

Executive Office	$9,175.00
Comptroller Services	38,000.00
Administrative Services	93,426.00
Land & Water Acquisition	47,774.00
Boating Safety — Information & Education	59,050.00
Legal Services	3,860.00
Engineering and Development	477,225.00
Maintenance	166,408.45
Law Enforcement Services	828,180.55
Boating Services	431,901.00
Boating Fund — General Operations—Total	$2,155,000.00
Department of Revenue — Collecting Motorboat Registration Fees	150,691.10
Department of General Services — General State Authority Rentals	1,984.86
TOTAL	***$2,307,675.96***

Note: Effective December 1, 1977, Act 87 transferred all activities and responsibilities of collecting, processing, and accounting for motorboat registration fees to the general operations of the Boating Fund, Pennsylvania Fish Commission. All items stated in this financial report in re Department of Revenue relate to transactions occurred July 1 to November 30, 1977.

PENNSYLVANIA FISH COMMISSION
CLASSIFICATION OF EXPENDITURES & COMMITMENTS
(incurred July 1, 1977, to June 30, 1978)

	Charged to FISH FUND	Charged to BOATING FUND	Combined Funds Expenditures & Commitments
PERSONNEL COSTS:			
Salaries and Wages	$4,918,538.61	$ 965,988.42	$ 5,884,527.03
State Share — Employe Benefits	1,484,582.77	185,489.63	1,670,072.40
Travel Expenses	105,736.22	34,742.91	140,479.13
Purchase of Uniforms, Clothing, Footwear	26,323.05	5,561.77	31,884.82
OPERATING EXPENSES:			
Fish Food	609,032.30	-0-	609,032.30
Utilities (Heat, Water, Electricity)	361,965.58	6,593.52	368,559.10
Printing	206,167.41	91,473.77	297,641.18
Vehicle Maintenance — Gasoline, Oil, Repairs, etc.	219,250.45	60,150.31	279,400.76
Payments to Other State Agencies for Services Rendered	173,920.81	97,355.94	271,276.75
Other Supplies (Educational, Office, Laboratory) & Contingencies	170,056.90	22,128.51	192,185.41
Machinery and Equipment Repairs and Building Upkeep	126,304.53	30,120.23	156,424.76
Telephone Expenses	77,896.85	34,225.34	112,122.19
Rental of Buildings for Offices and Storage	60,875.50	33,737.44	94,612.94
Postage	43,694.96	45,812.34	89,507.30
Contracted Maintenance Service of PFC Buildings and Grounds	68,714.23	19,091.16	87,805.39
Maintenance and Rental of Office, Copying, Tabulating Equipment	34,512.82	12,853.47	47,366.29
Consulting Fees for Land Appraisals, Legal Services, etc.	28,304.05	10,454.38	38,758.43
Insurance — Liability, Surety, etc.	27,440.43	7,593.51	35,033.94
Grants to Outside Organizations for Research or Services	10,000.00	-0-	10,000.00
CAPITAL INVESTMENTS (Purchases, Improvements):			
Access Area Development and Improvements to Lakes and Streams	82,618.60	246,118.77	328,737.37
Machinery and Equipment	103,284.38	106,800.48	210,084.86
Consideration Costs of Lakes and Streams Acquired	113,535.00	47,774.00	161,309.00
Purchase of Automobiles, Trucks, Watercraft	127,512.80	31,898.97	159,411.77
Building Improvements to New and Existing Structures	69,607.65	59,035.13	128,642.78
Pennsylvania Fish Commission — General Operations — Total	$9,249,875.90	$2,155,000.00	$11,404,875.90
Dept. of Revenue — Collecting Motorboat Registration Fees	-0-	150,691.10	150,691.10
Dept. of General Services — General State Authority Rentals	62,132.87	1,984.86	64,117.73
TOTALS	**$9,312,008.77**	**$2,307,675.96**	**$11,619,684.73**





Fishin's Been Good!

Young Russell Young, 71, above, caught a real "pan" fish: a 15½-inch black crappie on a spinner at Lake Minnisink.

George Micher, 15, above right, had a 15-minute battle with his 34-inch, 10-pound tiger musky. He caught it from the Youghiogheny River, using a live chub on, would you believe, 8-pound line!

Ten-year-old David Manross, below, proudly hefts his 18¼-inch smallmouth taken from the Allegheny River, using a minnow.

Marvin Shubert, right, caught that classic 20-inch brook trout from the East Branch of Antietam Creek using cheese.





FLY TYING

Special Techniques — Part III

Whip Finishing in out-of-the-way places

by Chauncy K. Lively
photos by the author

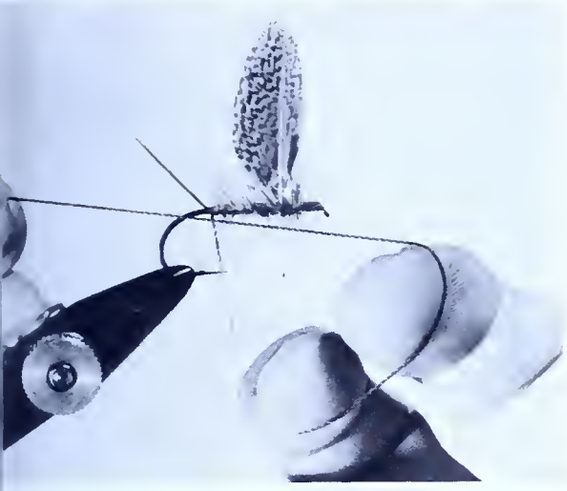
Traditionally, the whip finish is applied at the head of the fly and executed either by hand or with a tool especially designed for this purpose. It is generally the final step in dressing most types of flies and its anterior position is dictated by the typical flow of dressing which runs from rear to front. But there are numerous occasions, particularly in dressing palmer mayfly duns, when I find it advantageous to form the body and wind the hackles in reverse direction, progressing from front to rear. This positions the whip finish at the rear of the fly, at the hook's bend and underneath the apex of the tails. Of course, it is impossible to use the whip finishing tool in this location and the operation must be done manually.

In the reverse-palmer style of dressing, the tails are tied in and the thread is spiralled forward two-thirds the shank length, at which point the wings are bound in position. The hackles are then tied in just forward of the wings, at right angles to the shank and with dull sides facing the eye. Then the thread is brought forward to the eye and body dubbing is applied. The fur-dubbed tying thread is next wound rearward to form the thorax with its thickest point at the base of the wings; then it is wound in a diminishing taper to a point just forward of the tails to fashion the abdomen. The thread is now anchored at the posterior end of the abdomen. The hackles (generally two in number) are wound individually. A full turn is made in front of the wings and subsequent turns behind the wings in spaced, open-palmer style, ending at the base of the tails where each is tied off. The second hackle follows the path of the first. Ideally, the final turn of hackle should be a full turn around the shank at the tail position but it is rare to find hackles of proper barbule size which are long enough to permit this kind of luxury. After tying off the hackles and removing the excess tips the thread is drawn between the hook's bend and the base of the tails; then the whip finish is applied as shown in the illustrations. After trimming the hackle to a wide V underneath, a drop of cement is applied to the finish winds.

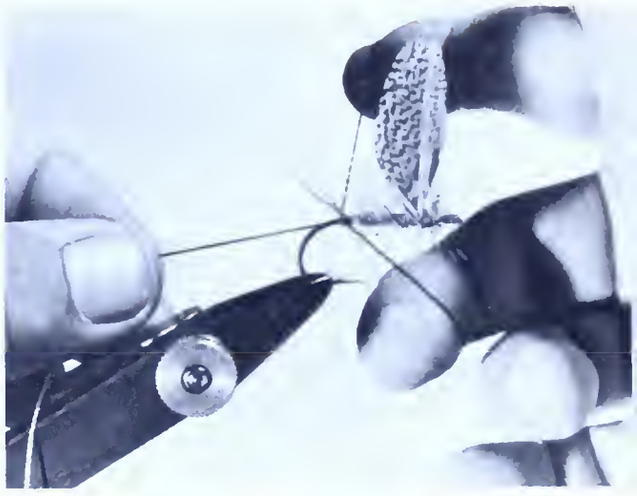
The reverse-palmer tying procedure may appear at first blush to be a rather oddball approach but there is an underlying rationale in all this, particularly when the aim is representing mayfly duns. First, the hackles should be arranged in such a way that the tips of the barbules touch the surface film in approximately the same arrangement as the insect's feet, thus insuring a realistic light pattern. Secondly, the hackles should give maximum support in the area of the hook's bend — the region of greatest weight — so that the tails may be angled upward and not required to hold up the fly's posterior. The reverse-palmer dressing fulfills both these demands. Winding the hackles over the abdomen in spaced turns toward the rear naturally directs the barbules to the proper rearward angle. If you like to experiment, try tying the hackles in at the bend and winding them forward in open turns. You'll find that now the barbs are angled frontward and the contact points are mainly distributed over the front half of the fly, denying correct overall balance.

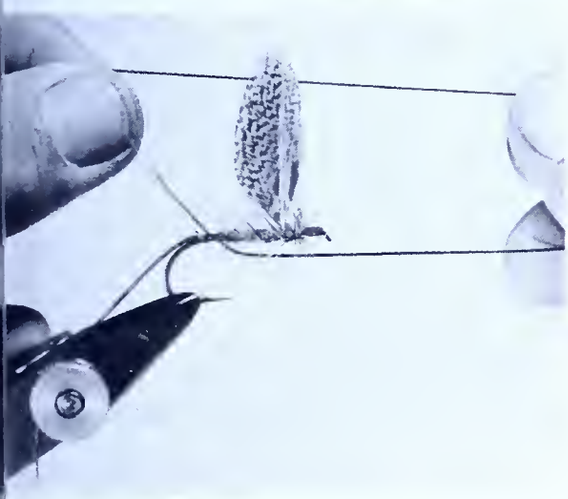
The rear whip finish is also useful in repairing or replacing nymph tails. By midseason I find that the tails of some of my favorite nymphs are missing — particularly those made of soft fibers. Now it's no disgrace to have trout chomping off the tails of one's nymphs because it is an indication that the artifials are doing their job. But somehow, a tailless nymph is not very satisfying, even when the rest of the fly is intact. So, I occasionally undertake a little repair work and dress new tails of stripped hackle ribs. After I've whip finished under the tails the nymphs look almost new and their lifespan has been extended considerably. Hardly anyone would ever know they'd undergone surgery.

Whip Finishing at the Rear of the Fly:

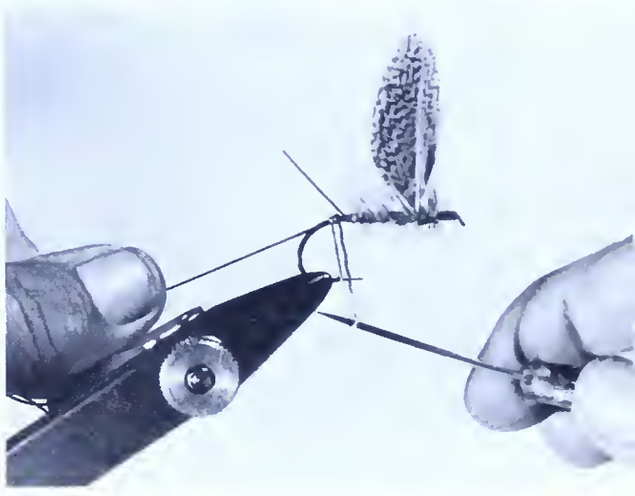


(Note: To more clearly show the proper overlapping of strands, a section of the tying thread has been dyed black.)
Left — Let's assume we've dressed a reverse-palmer dun and have tied off the hackles at the tail position. Holding the free end of the thread (dark) against the hook, form a loop with right hand.
Right — Pass anchored strand of loop (light) over horizontal strand, binding the latter against the hook. Then pass anchored strand under tails. Now attach free end to material clip or allow to hang under weight of bobbin. The anchored, or vertical, strand should be kept under tension throughout this operation.





Left — Open loop to clear the wings and wind vertical strand over and around horizontal strand three or four turns.
Right — Then place bodkin point in loop and pull free end of thread with left hand to close loop against hook.





Left — After trimming off end of thread and applying cement, the rear whip finish is completed.

Replacing Nymph Tails:
Right — Tie in fine tying thread at rear of body and bind on three brown stripped hackle ribs with tips facing forward. Then trim off butts close to windings.



Right — Bend tails back into position and take two turns of thread over apex of tails to secure. Then whip finish under tails (as described above) and your nymph is as good as new.



What to do when you can't find it on a counter? Make it yourself!

Making & Fishing the *MINI-PLUGS*

by Frank Lucas



The author thought he needed a small plug or two for one of his favorite fishing spots . . . finding none available that matched his needs, he fashioned his own "MINI-PLUGS"

The little black lure landed softly in the water and I allowed it to float downstream with the current. The creek had cut out a nice hole beneath a pile of rocks and logs that stuck out from the bank and I had caught a nice bass here earlier in the summer. When the lure reached the lower end of the hole I closed the bail and began the retrieve. A smallmouth bass smashed the lure almost as soon as it disappeared beneath the water's surface. I immediately forced the bass away from the logs and out into more open water but it was several drag-screaming runs later before I had him under control. The bass fought wildly trying to escape but I was finally able to skid him into shallow water and lift out a feisty 16-inch smallmouth bass.

Quickly slipping him onto a stringer and into the water, I flipped the lure back out into the current and let it drift downstream into position. The reel handle had hardly made three turns before a second smallmouth had the lure. This one fought every bit as hard as the first but made a couple of head-shaking, tail-walking jumps to add to the show. I could hardly believe it as I lifted another 16-inch bass out of the water..

A third cast brought no strike so I switched lures, tying on a small alphabet plug. I drew a blank on the first cast but the second resulted in another slashing strike and I was fast to another smallmouth, a carbon copy of the first two. This was really my day: three 16-inch smallmouth bass, on five casts, and all from the same spot! Not only were these the largest bass the creek had given up but the first two were caught on a handmade lure I had fashioned just for this stream.

The creek I was fishing, is small, the deepest holes average only three to four feet in depth, but it is loaded with smallmouth bass and sunfish. Since I enjoy catching sunfish as well as bass I wanted a lure small enough for both but the commercial offerings were all too large. I also wanted the lure to float so it could double as a topwater lure, have a lot of natural action, and run close to the bottom in the deepest holes. Sounds like the all-American, all-around, "do everything" type of lure. Needless to say, it didn't exist commercially so I had to make my own. My first attempt turned into an instant winner — it's the one I caught those first two smallmouth bass on.

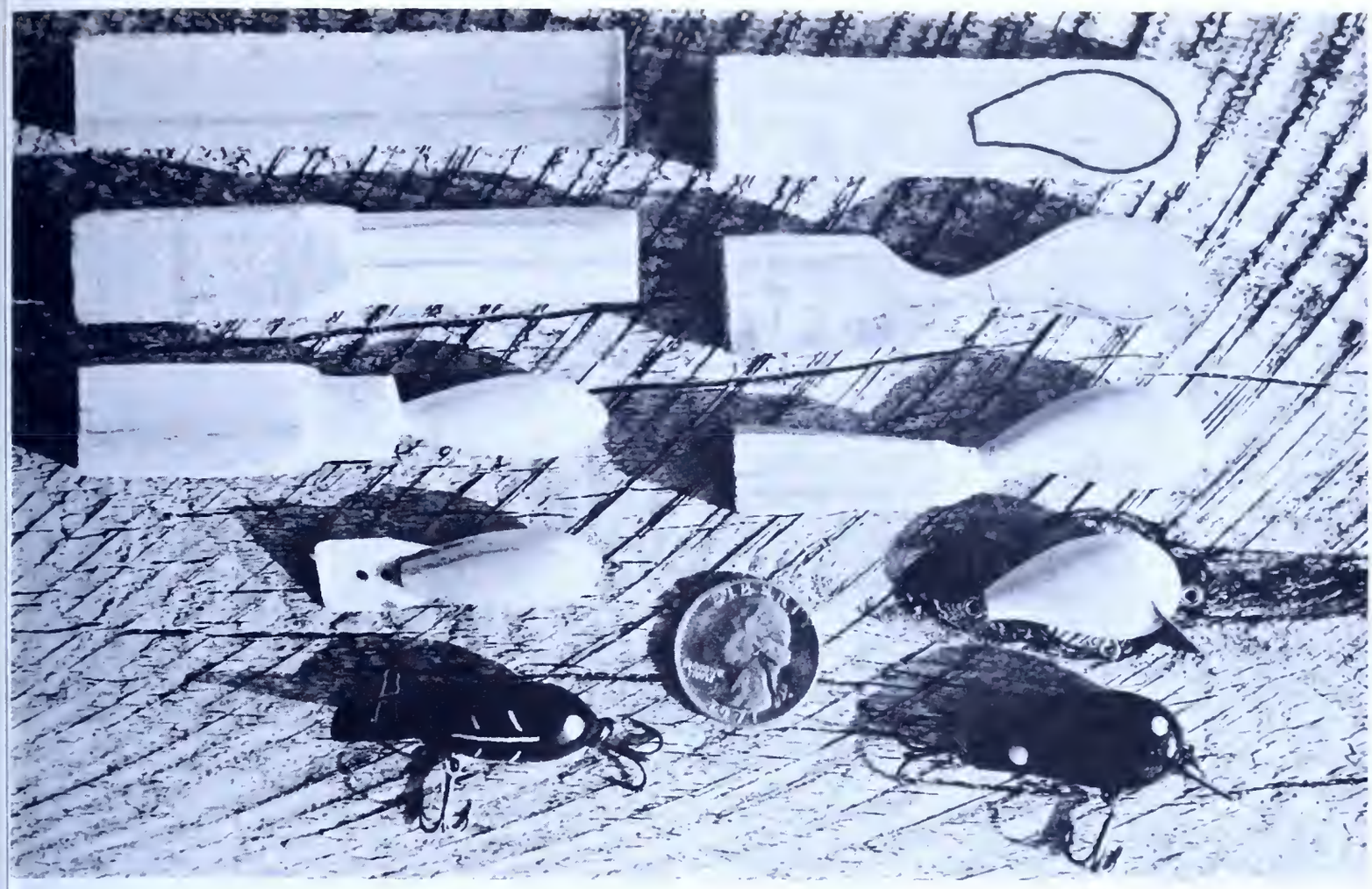
With the myriad of commercial lures on the market the obvious question is why make your own? I make my own for three reasons: to cover a special situation, economy, and personal satisfaction. My first crack at lure-making was in response to a special situation, the small creek and small fish. I enjoy the economy angle. But personal satisfaction is becoming more and more important to me. I just like to catch fish on a lure I made myself.

Lure-making is not difficult and it doesn't require a lot of tools. About all that is needed is a pocket knife, wood rasp, tin snips, small drill or finishing nail, and a small coping or hack saw. Here's how I build that floating-diving lure and a small alphabet plug.

The materials required include size 10 treble hooks; size 1 light duty split rings; screw eyes (shank length ¼" — wire diameter .041); two-tube set of epoxy glue; a 3" x ¾" x ¾" piece of pine or basswood; size 1 Duolock snaps; scrap pieces of house siding aluminum; and Testors or Pacta enamel paint in clear and colors.

Construct the floater-diver by reducing the wooden block to a round cylinder with a pocket knife or rasp. Next rasp the lure into a tapered torpedo shape and sand smooth before cutting it loose from the block. A small lure is much easier to sand while it is still attached. Cut the lure free and then saw a ⅜" deep slot in the small end. The diving lip will be installed in this slot.

Make a template from a file card and use it to cut out the metal diving lip. Drill two 3/32" holes in the lip so you can attach the Duolock snap for a line tie. Epoxy the lip into place and let dry. When dry, drill a small hole (1/16") for the front screw eye making sure it goes through the metal diving lip. If



The photo above illustrates each step of the plug-making process the author describes in the text.

you don't opt to put a hook here epoxy a small metal pin or nail into the hole to tie the metal lip to the body of the lure. Screw the rear (large end) screw eye into place and then remove it.

Spray the lure lightly. When dry, sand with fine sandpaper and repeat until no grain shows through. Apply the finish design. I suggest you keep it simple as you will never be able to duplicate the commercial designs and the fish don't care anyway. Apply a final spray coat of clear paint and let dry thoroughly. I suspend mine over a heater vent and leave them for two or three days. Don't ruin a good paint job by rushing it. Apply epoxy to the screw eye threads and turn them into place. Wipe off the excess. When dry, attach the line tie and hooks and your floater-diver is complete.

Fish this lure by letting the stream current carry it through the hole you are fishing and then retrieve upstream. Retrieve slowly and if you should happen to encounter an underwater obstruction just slack off and let the current and the lure's buoyancy carry it free. When it pops to the surface start retrieving again. Oftentimes a bass will hit the lure as it is rising or just as it starts down again. When a straight retrieve brings no strike try the reel, stop, reel, stop, method. By making use of the stream current and the lure's buoyancy I am able to fish in and around streamside brush and snags that I could never fish properly before.

The alphabet lure is constructed by reducing the ¾″ wide block to a width of ½″. I use a pocket knife to shave mine down to this width. Make a template and draw the shape of the lure onto the block. Carve or saw out the basic shape. Give the lure its final shape by rounding off the square edges with the rasp. Sand smooth and cut free from the block. Make another template for the metal nose piece and cut it out. Saw a ⅛″ deep slot in the front of the lure and epoxy the nose piece into place. Let dry. Mark the location of the screw eyes (two for hooks, one for a line tie), turn into place and then remove.

Finish the lure the same as the other one. Epoxy the screw eyes in place. Wipe off any excess and let dry. Attach the hooks and a split ring to the line tie. Your alphabet lure is finished.

The lures I make are small but they have more than adequate strength. I caught an eight-pound carp on the floater-diver mentioned at the beginning of this article and could find no evidence or signs of the hooks pulling out. If you have any doubts, take a couple of pieces of 15-pound-test line and attach one piece to the line tie and one to the rear screw eye and pull. I broke the line every time. The basswood will definately make a stronger lure than the pine but how much stronger I don't know. These lures are designed for light spinning tackle and don't have enough weight for bait-casting equipment.

Don't be liminted by the two lures I have shown you how to make, experiment with your own designs. A topwater lure can be made using the same basic shape as the floater-diver. Leave it plain or add a propeller to one or both ends. If these lures are too small make yours larger to fit your individual fishing situation.

If there's no complete tackle store in your neighborhood you may have to turn to the mail-order field in order to secure the needed materials.

I can guarantee that when you catch that first bass on your hand made lure you will be "hooked" on making your own.

Ashore & Afloat

by Gene Winters

If you're getting bored with winter, pick up the phone and call your friendly hometown banker, or any banker who will talk to you.

I thought I knew something about banks and bankers, boats and buying . . . over the years I sure have done my share to stimulate the economy and improve a few banks' balance statements! I've also heard plenty of stories from boaters with similar financing stories and experiences, along with a few I've never encountered.

One fellow told me he bought four cars, a TV, a stereo, furniture, and a house — all through the same bank and banker. BUT, when he applied for a loan to buy a small *boat,* the banker really got uptight. In fact, he did his best to talk him out of even considering buying a boat, even if the fellow would have had his own money. When the banker realized his customer was going to buy that boat, even if he had to rob a bank to get it, he struck a compromise. "Frankly," he began, "you've never done anything like this before and I think it's risky. But I'll give you a *personal* loan for the amount . . . if you promise you won't tell *anyone* that you're buying a *boat* with the bank's money. Okay?"

But times have changed. Or have they? I know some banks that won't give you the time of day after you tell them you want to buy a boat. Still other banks have found some real gold at the end of the rainbow when they jumped into boat financing with boat (or is it both?) feet. To find out the latest on financing, I called half a dozen different banks, asking first about their loan plans and terms, in some cases saying it was for a "vehicle," in all cases waiting till the end to tell them that the "vehicle" was a boat.

The first thing I found out was that banks, unless they *really* know you — and almost on a first-name, social basis — are very reluctant to quote rates and charges over the phone. Another thing I found out was that far more "different" interest rates are available at a given bank than I knew or thought existed. To tell the truth, at least in one case, I was left with the impression interest rates were made up by bankers as they go along. Indeed, one polite but firm lady banker advised me she absolutely would not quote on the phone, that loans were approved on a personal, case-by-case basis. Translated, that sounded very much like "as much as the traffic would bear." (Subject to legal maximum interest rates, of course.)

I called one bank four times over a five-day period and talked to three different "loan arrangers." The one officer I talked to twice gave me a different and higher interest rate the second time we talked. Whether he had made an error one of the two times, adjusted the interest rate, or reclassified the type loan, I don't know. I asked all three of the banks' personnel to quote on five thousand dollars to be repaid over a three-year period. I informed them I was going to buy a "vehicle." What was very interesting was that, over the repayment period, the difference in total interest charges quoted by the same bank was $240. After receiving the quotes, I informed them I was going to buy a boat-type "vehicle."

"Well, you'll have to pay a slightly higher interest rate if it's for a boat," one of the tellers informed me. "Boats are high-risk investments." I tried to explain that I had read where boats were very good investments, from a repayment standpoint, but it failed to make an impact. The second officer at the *same* bank told me the bank never had and probably never would finance a boat, no matter how much or how little money was involved. And the third loan approver? He said, providing my credit was approved, he'd be happy to finance a boat for me at their usual low, low auto rates.

Another bank quoted interest rate and repayment terms on $5000 for three years. But as soon as I mentioned a *boat,* there was a minute of silence — probably in loving memory of a bank president who would pass away at the financing of a boat.

"Do you have one of our bank credit cards?" he finally asked. (Doesn't everyone?)

"Certainly," I replied.

"Well, then, we're in good shape," he continued. "I can arrange it with our subsidiary through your bank card."

I saw problems ahead. "I have a $700 limit," I confessed. "I need $5000, not $800."

"Don't worry," he reassured me. "Our subsidiary finance company will let you have the full $5000 and if you stop in today we can probably have the money tomorrow, or next day at the latest. Of course, the interest rate will be a little higher."

"How much?"

"A little."

"How much?"

"Three percent annually . . . you'll hardly notice it."

There are at least a couple of dozen other stories I could tell about my phone calls, enough to fill another column. And while I don't seriously suggest you jump on the telephone and start bugging all the local bankers, I do think it's important to realize you've got to dig in to get the best deal or maybe even to get any kind of deal at all. It really pays to pin them down, even if it means in person, especially when it comes to the interest rate. For example, I was quoted interest rates as low as 12.96% and as high as 16.97% annually. Since these were all telephone quotes, I had nothing in writing to detail them and, since they were not in writing, cannot verify their accuracy or even absolute availability. But what it did prove is that all loans, even within the same bank, are not made at the same fixed rate of interest that many bankers would lead you to believe.

Whatever you do, if you're credit is good and you can prove it, don't accept the first rate as the only rate. Be sure to question the banker about other types of loans that are available and pin him down. He should be prepared when he makes an interest rate offer to back it up. In other words, it should be at least no higher than similar loans under similar circumstances to similarly rated customers. Find out if



The type and size of boat often has little to do with whether a bank says yes or no to your application for a boat loan. If there's a trailer needed, don't forget to include that in your financing plans.



lower rates are available with additional collateral. Some banks offer lower rate to their regular customers or on personal loans rather than installment type loans. But remember, you'll have to ask to get it. Banks are in business to make a profit, just as any business. They are, of course, highly regulated, but that doesn't mean they can't do a little "wheeling and dealing" as long as it's legal and, hopefully, ethical. Remember, the rates I was quoted? There was a difference of over two hundred dollars in total interest between the lowest and highest rate. And that's worth doing a little dickering over before you sign on the dotted line.

There are some banks as well as finance companies that *specialize* in boat loans. They usually offer a very attractive interest rate because they have plenty of experience in the field. They believe the figures that less than one-half of 1% of boat loans go sour. While many regular banks and finance companies advertise and encourage boat loans, in reality they often are at premium interest rates, particularly in regard to auto loans. Not always, but often.

Don't overlook dealers when it comes to boat financing. Everyone's always concerned whether he gets a "finder's fee" from the bank. So what if he does? As long as you get what you want, a reasonable and acceptable interest rate, and terms, what difference does it make? Besides, in eight out of ten cases the dealers can probably get the customers better financing rates than they can get on their own. A friend of mine bought a boat about five months ago through a dealer who arranged the financing with a metropolitan bank. The interest rate? Slightly over 11%. I couldn't get that rate quoted even from by hometown banker, who I do know socially and on a first-name basis.

One final bit of advice. If all else fails, close your eyes and pick a bank or finance company out of the phone book at random. Take $5000 in cash with you and go in and show them the money when you fill out the loan application. When you come out, you'll have $5000 of their money in *your* pocket. That's one thing that hasn't changed — if you can prove you don't need the money, you'll get it every time — even if it is to buy a *boat!*

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Male bass do two important chores while guarding the nest where eggs are hatching. They guard the nest against fish and other predators that seek to destroy the eggs; and, they also fan the eggs continually with their fins to keep the eggs from being covered by silt that would destroy them.

Hook size should be tailored to the size of fish being sought. Small hooks are less readily seen on panfish and trout of average size. Large hooks provide a greater margin of safety on big fish, hard fighters or fish with tough mouths.

Fine leaders are as necessary in wet fly fishing as in fishing with dry flies.

White pork rind remains the favorite color although some anglers like rind that is red, black or yellow when fish are extra choosey.

Some lakes are homes for both largemouth and smallmouth bass. The smallmouths will be found around rocks or ledges in the water. Largemouths will be found in marshy and weedy shallows, often with mud bottoms.

Minnows six or seven inches long are not too big for northern pike bait.

Fly rods and bass rivers and creeks go together. The water is more shallow than in lakes; good fishing spots are smaller and more easily seen; with the fly rod, casts can be made with greater delicacy and accuracy.

Accuracy is vital in fishing a dry fly for trout. Not often does a feeding trout see a floating fly at a distance greater than a couple of feet.

Take time to apply a very light coat of rod varnish to the guide wrappings on a rod before using it during a new season.

Worms are No. 1 bait for bluegills, perch and bullheads. Minnows are top baits for rock bass and crappies.

In using two or three wet flies on a cast, choose flies of different colors. With three colors, make the end fly dark, the middle fly medium and the top fly light. With two flies, make the end fly dark and the top fly light.

Streamers usually are fished under the surface of the water, in imitation of darting minnows. There is another effective tactic that takes big fish. The retrieve is begun the instant the streamer falls on the water surface, and the streamer is kept moving with splashy action as near the surface as possible. This makes it appear to be an injured minnow trying to escape. Streamers as long as three or four inches are good for this type of angling.

A piece of thick carpeting on the bottom inside an aluminum boat or canoe will absorb vibrations sent into the water when a piece of tackle or equipment or a heavy foot is dropped on the metal surface.



Keep well back, as far as you can cast a fly accurately, when fishing a narrow run in a trout stream. Fish feed throughout the faster moving water, and the experienced fly fisherman casts first to the lowest end of the run, they gradually works farther upstream, striving to keep his line and leader below the position where the trout may be watching for food.

When you have a tough time with trout feeding on midges on the surface, try this: Tie a midge pattern, Size 18 or 20, on a very fine (at least 5X) leader tippet. On a dropper strand about 18 inches above the tippet, tie a floater such as a bivisible. Cast carefully and let the combination float with the current. Set the hook when the big fly, which acts as a bobber, makes any unnatural movement.

The Quill Gordon is a top pattern for early season fishing. The Red Quill, both the Light and Dark Hendricksons and the March Brown are also excellent. These imitiate the natural insects that appear earliest in trout water.

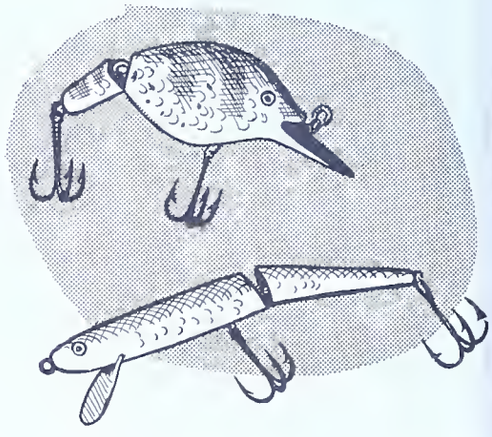


You fail to "match the hatch" and trout continue to feed but ignore your offerings. Try a sharply contrasting pattern of dry fly, such as the Royal Wulff (left), a small Muddler minnow (center), or even a small streamer (right).

Plastic sponges of various colors, cut into small cubes or balls, produce good imitations of clusters of fish eggs. They will have an added attraction if soaked in codliver oil. Orange is a good color.

Don't be hasty or impatient when fishing with live bait. Work an area of water long enough to decide the fish are not hitting, then move to another spot. But also give the fish time to see the bait you are using. Don't expect to hook a fish a couple of seconds after your bait enters the water — that seldom happens.

Jointed plugs, such as the ones sketched here, are good because the vibrations of the tail section attract fish more effectively and at a greater range than do lures of only one piece. Both surface and sinking lures of popular models are available with jointed bodies.



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Angler

FEBRUARY—1979

the Keystone State's Official FISHING·BOATING Magazine...

30c Single Copy





"Ours to love . . . and use wisely . . ."

We are pleased to see CBS updating an initial survey made in 1970 on the quality of our environment.

From our viewpoint we feel that the "environmental movement" that began with a splash in 1970 has been a smashing success; and, although the initial faddists dropped out quite soon when they found out it was hard, dirty work, we feel that an awareness has been built into a small but effective cadre of Americans who have been working diligently to develop conservation consciences throughout the citizenry.

It is true that a number of the earth's natural resources have been and are being overexploited; of all things, some by ignorance, but mostly by shortsighted greed. Intensifying efforts to extract more of the fugitive resources such as coal, oil, and gas are only stopgaps, and within a very few years major changes in emphases must be made. A number of experts still believe that the prospects are bleak. The population of the earth has increased over 700 million in the last ten years, and man is threatening, with his multitude, all life.

We believe that awareness is afoot, and that the earth can save itself — if we give it a chance.

As Douglas Burden put it, "this earth is ours to love and live upon and use wisely down all the generations of the future."

Ralph W. Abele
Executive Director

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

Published Monthly by the
PENNSYLVANIA FISH COMMISSION
COMMONWEALTH OF PENNSYLVANIA
Richard L. Thornburgh, Governor

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ON THE COVERS

All is not play for the ice fisherman, as Andrew Konitsky finds out on Glendale Lake, front cover. After the holes are drilled, though, it becomes more of a waiting game as depicted by the unidentified angler on our back cover. Photos: Russell Gettig, Staff Photographer

MONTHLY COLUMNS

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James F. Yoder, Editor

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Editor's note: The following article, written by News Editor Joe Hicks, appeared in the York Sunday News. It was brought to our attention by Floyd Lang, Park Superintendent at Codorus State Park, and is reprinted here with permission of the Sunday News.

MUSIC TO FISH BY: ANGLERS SAY AND ATTRACTS FISH

Fishermen of this area say the sport is great almost any time of the day. But there are some who claim, with a straight face, that the finny creatures of the deep of Marburg Lake at Codorus State Park literally fight to jump on their hooks whenever the Lyric Band of Hanover plays one of its concerts at lakeside.

Gary Laughlin, of Hanover, says he and his father, Joseph, of Westminster, Maryland, always arrange to go fishing at Marburg Lake when the band plays one of its summer concerts there.

"Because we always catch more and bigger fish whenever the band plays," says the younger Laughlin, "I don't know why it is. But it is, "he continued without a trace of a smile on his lips.

"Look at this picture of a pike I caught here last month when the Lyric Bands was playing right over there," the elder Laughlin said, pointing to the bandstand.

"Maybe the vibrations of the music have something to do with it," said the younger Laughlin again. "They seem to like military marches better than the slow, waltz kinds of music. It seems the faster beat of the military music really attracts them," he said, still not smiling.

"I'm serious," he said. "Ask some of the other guys who fish around here if it isn't true. They'll tell you."

One old fellow from High Rock said he couldn't say if it was true or not. But he vowed he was going to try to wet a hook or two next time the band plays at the lake.

Another fellow and his wife, from Spring Grove, said they had heard some of their fellow fishermen talk about the effect of the music on the fish. But they hadn't fished in the lake when the band was playing so they couldn't say if it was just another fish tale or not.

Another regular fisherman, Gil Bellows, from Manchester, Md., said he had fished at the lake when the band played and did seem to catch more and bigger fish than at other times.

"It's the first time I ever heard it was the band music that was responsible for it," he said. "Guess I'll have to read the papers for the band concert schedule after this."

Two teenage boys were asked it they thought the band music might attract fish to their hooks. "Heck no!!!" exclaimed one. "My dad says you gotta have it quiet when you fish. You don't even talk above a whisper because they can hear you."

"Shucks," said the other. "If the music was attracting them why don't they come when I play my harmonica," and he whipped out a harmonica and began to play "Yankee Doodle Dandy," on it. He fished as he played for about 20 minutes and didn't get a nibble.

So who knows? Maybe the fish require a full band in order to get excited enough to jump on a hook. Maybe the vibes of the music are only effective within a short distance of the band. Perhaps only special kinds of hooks with special types of line are able to conduct the vibrations of the music to attract the fish.

At any rate, Bruce Welser and his Lyric Band from Hanover, are the subject of an unusual debate among the followers of Isaak Walton in this area.

If you are of a mind to try an experiment you'll have to wait until next summer, however, because the band concerts have ended for this year.

"HAD A LOT OF FUN"

If I interpret my mailing label correctly, my subscription expires in January. As I don't want to miss a single issue, I've enclosed a check for three more years.

This was a super year of fishing, although I didn't get to go as often as I'd like. (Is it ever possible to get enough fishing?) My husband caught his first bass ever, at Marsh Creek Lake. What a thrill that was! He's anxious to try for another one. And my best friend caught a 20-inch rainbow on a fly out at the Yellow Breeches. I didn't personally do anything spectacular but I had a lot of fun.

I'm looking forward to many happy fishing seasons here in Pennsylvania, and many more years of reading the *Angler*.

MRS. LESLIE M. JENSEN
Norristown

CONGRATULATIONS, KEITH!

You may be interested to know that our "*Guests*" article took first place in LOWRANCE Electronics Inc., writing contests (for individual and series writing in mag and newspaper and television an radio). Old Keith received $500.00 and plaque is supposed to be on the way. Ther was a likeprize for a series on the subject

If you have a beat-up copy (believe i was March), I would appreciate it since used mine for the contest.

Anyway, hooray for us! I guess.

Regards,
KEITH C. SCHUYLE
Berwick

That didn't surprise us in the least, ol buddy, we recognize good stuff when we se it! About that "beat-up" replacement cop — sorry, we had to send you a new one Fear not, it will be "beat-up" when yo receive it, the Postal Service does a "bang up" job in that department! Ed.

CORRECTION —

November 6, 197

Mr. James F. Yoder, Editor
Pennsylvania Angler
Pennsylvania Fish Commission
P.O. Box 1673
Harrisburg, Pennsylvania 17120

Dear Mr. Yoder:

I would like to correct Mr. James C Smith's statement in the "Leaky Boots section of your November, 1978 issue o the *Pennsylvania Angler,* entitled "Down hill." Mr. Smith made some very erro neous statements about New York State fish hatchery facilities and stocking pro gram that I would like to straighten out fo your readers.

Mr. Smith stated that we had close down most of our hatcheries and almos quit stocking entirely. Actually, just th opposite is taking place. In the last fe years we have increased our hatchery pro uction of salmonids in New York Stat from about 550,000 to about 750,00 pounds. We are about halfway through major modernization program on our exis ing 15 hatcheries, including 12 coldwate or salmonid hatcheries and 3 warmwate hatcheries. Even more important, we are i the final construction phase of a new $1 million+ salmonid hatchery located on th Salmon River near Altmar, New York tha will increase our salmon and trout pro duction by 210,000 pounds. This means b 1980–81 we will have doubled ou salmonid production capabilities in Ne York State in less than a decade. Th surely contradicts Mr. Smith's statemen

In addition, we are now stocking or million lake trout per year in Lake Ontar and 200,000 lake trout in Lake Erie, cooperation with Pennsylvania, each yea These fish are provided by the U.S. Fis and Wildlife Service federal hatcherie The lake trout program is part of th

overall Great Lakes Fishery Commission efforts to restore lake trout throughout the Great Lakes. Initial results from the stockings are extremely encouraging.

The fishing in New York State is probably the best it has been in over 100 years and even longer.

I do appreciate Mr. Smith's letter in that it tells me that for some reason we aren't getting information to all our fishermen. We will work on this. I would suggest Mr. Smith might subscribe to our *Conservationist* magazine if he doesn't already receive it. He may also wish to contact the Regional Fisheries Office near where he lives for specific state stocking information.

I, too, enjoy your magazine and envy the fact that Pennsylvania has a State-published magazine specifically for fisheries and fishermen. I commend you on your efforts.

Sincerely,
William A. Pearce, Supervisor
Great Lakes Fisheries Section
New York State Department
of Environmental Conservation

DYE PROBLEM —

Dear Mr. Lively:

For about three years now I have been making lures and have read the articles on fly tying with great interest. As most of my lures so far have been hair bugs, I came across the need for black hair.

The thought came to me that perhaps in you fly tying you also may have a need for the black. I have tried using Rit dyes which for me only darken the hair, sometimes to a dark green but never natural black. What I use most is deer hair.

Can you advise of a way to successfully dye deer hair or recommend where I can obtain literature on the subject? Thank you for any help.

T. K. Brown
Forksville

Dear Mr. Brown:

I referred your problem to Tony Marasco, genial proprietor of Fly Tyers Vice, 2225 Swallow Hill Road, Pittsburgh, Pa. 15220. Tony does a fine job of dyeing deer hair and he has kindly agreed to give up a few professional secrets. Here is his reply:

"1. I prefer the flank off a buck deer as the hair is longer and coarser. Cut into small pieces no larger than 2" x 2".

"2. Allow this material to soak in hot water (skin side up) with a wetting agent or liquid detergent until the hair is completely submerged up to the skin. (Minimum of one hour.)

"3. To boiling water in an enameled pot (I prefer a spaghetti pot w/insert for small quantities or a large canning type pot for larger amounts) add one package of Putnam or Rit dye, one cup of household salt and 4 tablespoons of Glauber's Salt (sodium sulfate). The latter may be obtained at a chemical supply house or ordered through your druggist. It may also be purchased from Jack's Tackle, Phoenixville, Pa. Allow material to boil until roots of hair are completely black. This will take 2 to 4 hours. Take a piece out of the dye bath with tongs and wash off excess dye with cold water to stop the cooking action of the skin. Check to make sure roots of hair are black. If satisfied, add acetic acid to dye and allow to cook for an additional 20 minutes. This sets the dye, after which only the excess should rinse off.

Notes:

Continually stir material — at least once every five miniutes. Glauber's Salt allows dye to penetrate evenly. (Preferred, but not a necessary ingredient.)

After hair has been removed squeeze out all excess water. Coat skin side with Borax and place skin side down on newspaper to dry. Then brush hair with a coarse brush until it lies straight. (You know what happens to your hair if you wash it and don't comb it!)

One other important note: If you dye in your kitchen, make sure your mother, wife or girl friend are not home. Dye will splash and stain everything it comes in contact with, including curtains, and of course, the dish cloth you use to clean up with. So use old rags, chlorine-type cleanser and of course, rubber gloves. (You'd feel pretty foolish with dyed hands for a couple of days!)"

I can vouch for Tony's methods because his black deer hair is jet-black. Good luck.

Sincerely,
Chauncy K. Lively

"BEST FOR THE MAJORITY . . . "

My heartiest thanks to Delano R. Graff for his exeellent artiele on "quality anglers" and "quality angling" in your November issue. I sineerely hope everyone who fishes for trout in Pennsylvania reads and rereads it, and then gives serious consideration to what Mr. Delano Graff has to say. Perhaps then some of the factionalism existing between the several schools of thought on how the trout fishery in this state should be managed will be redireeted to support what the Fish Commission is attempting to do.

It has long been my eonelusion that, in comparison with other states, Pennsylvania is a leader in fisheries management. Oh sure, I have often wondered why it is necessary to publicize stoeking dates, with its attendant truck followers and "fish hogs," thereby denying hatehery fish the chanee to adjust to their new environment. And adjust they do, as my experienee on the Fish-For-Fun seetions of Fishing Creek has taught me. More's the pity that we still have so many fishermen whose egos are so easily bruised when they return home without a ereel limit of trout. The goal seems to be, for many, that "I'm going to bring home enough fish to pay for the eost of my lieense." Still, I think the Fish Commission is proeeeding in the proper direction, whether or not it ruffles the feelings of the "quality angler" or the "fishing."

The impression I have of the eurrent public attitude is that minorities are suceessful in banding together to win their cause over unorganized majority opinion. I hope this will not be the ease in any possible dispute over the direetion in whieh the Fish Commission is going in our trout fishery management. Let us all give those who have a lot more faets and knowledge on the subjeet a ehance to prove that what they are doing is best for the majority of trout fishermen in Pennsylvania.

Good luck on your program, and again my thanks to Mr. Graff.

Richard C. Slama
Orangeville

IT WORKS!

Thanks a lot for the article in the June, 1978 issue entitled *"Luring Them Out of the Weeds."* On a recent fishing trip I caught three nice bass and a hefty 10-inch bluegill on a "Texas" worm rig worked through some weeds. Keep up the good work. (I am 14 years old.)

Raymond Labadie
Mt. Lebanon

HAD A GREAT VACATION —

Just wanted to write and tell you we had a great vacation this year thanks to the *Angler*. We've been getting the *Angler* for quite a long time now and always reading articles about fishing spots in other parts of the state and saying to ourselves, *"One of these days we've got to get there."* Well, this summer we made it happen. With a large stack of back issues of the *Angler* (never throw one out) we set off across Pennsylvania and stopped off at Raystown, Lake Arthur, Pymatuning, and the Allegheny Reservoir, and let the *Angler* guide us all the way. By consulting the articles, we had maps and all types of fishing information to help us. (The magazines were pretty dog-eared after we got home!)

Also, we got to Upper Woods Pond this summer (after another artiele in the *Angler!*) and enjoyed the fishing and the pond immensely. However, we did get a

(continued on page 25.)



Armed with the proper information, you'll have little trouble picking out your own "star wares." There are more than thirty eight different kinds of top-of-range cookware available.

MEALS from the CREEL

by Arthur J. Michaels

STAR WARES

Your fish cookery deserves the best quality cookware your budget can afford. But getting the most for your money isn't always a piece of cake. Sometimes it's tough to see through the barrage of advertising and sales pitches. Before you throw in the saucepan and settle for pot luck, consider these no-nonsense facts about cookware. Armed with this information, you *can* get the cookware and utensils you really want and need for your fish cookery.

Most cookware is made of stainless steel, aluminum, copper, cast iron, or wood. Each of these materials has a characteristic which you can use to greatest advantage. Take stainless steel, it makes the toughest, most durable and longest lasting cookware. For example, you'd have to whack a stainless steel saucepan very hard with a hammer to dent it. Stainless steel cookware and utensils are also easily cared for: hot water and soap are all you need to clean stainless steel and keep the finish attractive.

Stainless steel, though, is a low conductor of heat, so, in cookware it's often combined with other metals like copper and aluminum. Bottom-clad, two-ply, three-ply, and five-ply stainless steel cookware are all improvements over plain stainless steel.

Aluminum, on the other hand, is one of the best conductors of heat. Aluminum is also light and strong; large aluminum utensils are durable and easy-handling. The quality of aluminum cookware, however, depends on the thickness or gauge of the aluminum. Heavier guage aluminum cookware, expressed by lower numbers, is thick and sturdy; but, it's also more costly than thinner guage aluminum. When you're shopping for aluminum cookware, buy the heaviest guage wares available. Thicker aluminum distributes heat better than thin aluminum and adequate heat distribution is a key factor in preventing scorching of food and utensils.

But stainless steel and aluminum wares have one negative aspect, especially important to the fish cook. If you leave a heavily salted fish preparation in an aluminum or stainless steel pot for a while, the undissolved salt will cause pitting of the metal. To guard against pitting, add salt to an aluminum or stainless steel pot *after* its ingredients have reached the boiling point, and make sure all the salt is thoroughly dissolved. Besides pitting, certain foods will discolor aluminum, and excessive heat will discolor stainless steel. (This is often called "heat tint" in stainless steel utensils.) To remove discoloration and stains from your stainless steel and aluminum

cookware, add three tablespoons of lemon juice to each quart of water used and boil this solution in the utensil for about seven or eight minutes. Boiling acid foods, like tomatoes, will also remove discoloration without affecting food.

When you buy a new piece of aluminum or stainless steel cookware, wash it in warm water to remove manufacturing oils before you use it.

Like aluminum, cast iron is an excellent conductor of heat, but it absorbs heat slowly. The cast iron cookware of today is made of newer alloys which are stronger than the cast iron clunkers of yesteryear. Cast iron, though, is still less durable and much heavier than stainless steel or aluminum. If you drop a cast iron utensil (like the Liberty Bell), it will most likely crack.

Cast iron needs different "care and feeding" than aluminum or stainless steel. You have to "season" a cast iron utensil before using it. First, scour the new utensil in soapy water and dry it thoroughly. This washing removes manufacturing oils on your new utensil. Then pour some cooking oil on a wad of paper towels and spread a thin coat of oil over the cast iron surface. Heat the oil-coated utensil for an hour in a moderate oven. Be sure to use only low to moderate heat so that the oil dries rather than burns.

Cast iron stains and pits like aluminum and stainless steel. And, it will also *rust*. To prevent rust on a seasoned cast iron utensil, store it in a dry, open place, like hanging it on your kitchen wall. To remove rust from a cast iron utensil, use a scouring pad and wash the utensil thoroughly. Of course, after this kind of washing, you have to season the utensil again.

Copper utensils, like cast iron, have been made for thousands of years. The advantage of copper utensils is that copper conducts heat uniformly and very rapidly. For this reason, copper utensils make excellent top-of-the-range cookware.

Copper utensils, though, corrode easily. To keep your copper utensils shiny, wash them in warm water with a gentle detergent, and use a soft sponge instead of a scouring pad. After you clean copper utensils, shine them with commercial polish, or use equal amounts of vinegar and flour to polish them.

In addition to utensils made of various metals, wooden utensils also have a place in your kitchen. Wood is one of the poorest conductors of heat. You can use a wooden spoon, then, to stir boiling mixtures and to ladle cold foods one right after the other without the danger of the wood reacting to severe temperature changes. And you can stir a hot fish stock, stew, soup or chowder with a wooden spoon for hours without burning your finger on a hot spoon.

Do not buy a light colored, pine wooden utensil, even though they're readily available; pine and other soft wood utensils don't last as long as hardwood utensils. Cherry, maple, and beechwood utensils, for instance, cost more than pine spoons and spatulas, but these close-grained hardwood utensils will splinter less than pine utensils, in addition to their longer lives.

The best wooden utensils will be short-lived unless you care for them properly. Never let a wooden utensil soak in a liquid, and keep your wooden spoons and spatulas away from stove-top or oven heat. A soaking will cause a wooden spoon to soften and heat from a gas flame or electric element will scorch your wooden utensils.

Knowing the properties of metals and woods used in cookware isn't enough. Here is a checklist of six inspection and trouble-shooting procedures you should follow when you're buying cookware:

1. Read carefully all operating instructions or handling and care tips that are packaged with your new utensil. Don't discard them, either. File them for reference. If you have questions or new concerns about your utensil weeks, months, or even years after your purchase, checking those information pamphlets may save you a lot of correspondence, time and effort.

2. Make sure you buy utensils in sizes that most closely fit your fish cookery needs. You might consider buying a set of utensils in different sizes, rather than buy several different-sized items, one at a time. Purchasing sets is also less expensive than going the one-at-a-time route.

3. Make sure your new utensil has a tight-fitting cover or lid in the correct size.

4. Always check a new utensil for scratches, nicks, and dents inside and outside. And if your new utensil is painted, inspect it for a uniform paint finish without runs or dirt in the paint.

5. Look carefully at rivets and connections of a new utensil. Connections should be smooth and rivets should be tight so that food won't be trapped.

6. Make sure that knobs and handles on a new utensil fit snugly and are the proper size. If you wish to replace a knob or handle rather than buy a new utensil, you'll have to contact the manufacturer.

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Those Crazy People . . . Fishermen





Part I — Of Genes & Generalities

As there is a specific law which controls each and every thing that happens in the realm of Nature, there is a law governing sportsmen which states that, basically, there are two kinds of crazy people in the world: hunters and fishermen. They sit in shining aluminum boats in the middle of vast, glittering lakes under the blazing noonday sun and wonder why their ears and noses sizzle and curl. They squat crosslegged for hours on cold, wet chunks of Paleozoic limestone during autumn sleet storms and can't figure out why their backs and legs turn to solid rock and their plumbing freezes up.

I have no contempt or disrespect for either species, mind you, for I look up to the gentleman who put forth this principle, and he is and always was an admitted hybrid of both; and perhaps, although it only comes over me in late March or early April, when the snow cover melts and the sky begins to turn blue, I too have the genes within me.

Of the two, the fishermen are no doubt the more deranged, for the hunters at least have sense enough to carry a gun with which they fend off the snickers and cat-calls that are liable to emanate from a group of *normal* humans who catch sight of one or more of these crazy individuals as they go padding by. No hunter would ever pull the trigger on his fellow Man, rest assured, for hunters (and fishermen too, for that matter) have a keen sense of morality. But, in situations like the aforementioned, a twelve gauge has a certain presence about it which a bamboo flyrod does not, and the tendency is to salute the one and snicker at the other. So, in keeping with this natural course of things, we will let the hunter go on his way.

The fisherman's insanity may indeed be hereditary in nature — I do not doubt it, for I have seen grandfathers, fathers and sons all similarly afflicted, all with the same inborn instincts. But let this not lull you into reckless contact with these people: the malady is contagious as well, more so than the common cold. Spend as little as a quarter of an hour with a fisherman and you'll no doubt contract the ailment yourself; and there will be no helping you shake it off, for the ones who already have it seem to take pleasure in absorbing the newly affected into their ranks.

The only way of inoculating yourself against the contagion is to learn to recognize the Man who carries it. It is not an all-difficult task, nor a painful

by E.W. Fisher



one. The fisherman is as predictable as tomorrow's sunrise, and fishermen as a group are as similar as the grains in a shakerful of salt. Learn a few basic characteristics and physiological traits and you will be able to spot him from the road and know not to walk down to the riverbank to investigate him. See what he looks like in one of his many habitats (Not all fishermen are found where there's water, you know) and you will be able to pick him out in a small town beanery by just looking in the window, and you'll know to go somewhere else for your sausage and eggs.

I will share with you what I know, tainted now and then perhaps by my own seasonal infection, and I will tell you what my friend — an admitted carrier, as I've told you already — and other acquaintances have related to me. Maybe we can save you before it's too late, before you become another specimen on Man who is governed by The Law.

Fishermen are a friendly sort; that is probably the first thing you should learn about them. Don't expect them to run if they see you first, the way you've been taught most animals like snakes and bears do. This is undoubtedly the reason there are so many new infections every year. Fishermen are always willing to shoot the bull with you, always ready to sit down with you and tell you a story or an anecdote. There is one way to make them stop, however, and if you remember it you'll always have an ace in the hole when it comes time to deal with the critters. If a suspected fisherman is sitting cross-legged with you on the riverbank, telling you about the lunker bass and record musky he brought in the other day, just ask him where he caught them. Sure as there's a sky above you, if he's a fisherman, he'll clam up tighter than a corset on a zeppelin. When he does, waste no time in clambering back up the bank and into your car, for he's got the bad genes in him.

Fishermen and their wives have a peculiar relationship — another dead giveaway of the true fisherman. You may find yourself in a couple's home someday, the thought of the husband's being one of the deranged species being the farthest thing from your mind. A friendly card game, or a conversation about the state of the union might be going on, or maybe you'll just be sitting there watching the baseball game on television. Your hostess will ask you if you would like a cold beer or a can of soda, or maybe a dish of fresh strawberries and milk, and you'll probably accept. She'll glide out into the kitchen, leaving you and your host together in the living room. All will be quiet, and then there will come the most horrid, blood-curdling shriek you have ever heard.

"Help! Henry! There's a worm in the refrigerator!"

Your host will shift easily in his chair, cross his arms and reply, "Aw, take it easy, Martha. It's just my bait. There's six dozen of them in there — I have to keep them under sixty degrees Fahrenheit. One of 'em must've got loose."

Depending on the emotional fortitude of your hostess, she may or may not progress to: "Henry! There's an awful stink in the freezer! There must be something wrong."

"I don't think so, Martha. Is there a thing about the size of a softball in there, on the bottom shelf next to the TV dinners, wrapped in aluminum foil?"

There will be a short pause, and she'll appear in the doorway, holding the silver ball in her hand. "Is this what you mean, Henry?"

"Yeah, that's it, Martha. It's just my chicken gizzards, sucker entrails, moldy cornbread and strawberry Jello doughball — it has to be kept cold."

When she screams, throws the stinking thing down the cellar stairs and faints on the linoleum, make a break for the door and head home: the house is infested with the disease. If you stay any longer, you'll catch it.

In the stores, especially the discount stores and those big, overstocked sporting goods stores, watch out for people buying such atrocities as fold-up stools with hooks on them that allow you to hang them on your belt, little red vinyl pillows stuffed with some magical fiber that gives off heat when you sit on it (Fishermen likc to pick these up off the shelf and squeeze them between their palms to see if they work) and funny little caps with a big peak in the front to shade the eyes but a wide swatch of screen-like mesh across the top which lets the sun shine right through and burn the bald head underneath, thereby defeating the purpose of wearing a cap in the first place.

These are just a few generalities concerning fishermen — things you can store somewhere in the back of your head until you need them. All of them, despite the saying that nothing's perfect, are foolproof. They'll never let you down. But the more you learn about this deranged species of Man, the better off you're going to be, so keep your eyes open.

"Crazy people, fishermen . . . " he always said with a shake of his head and a puff at his pipe. "They get up at four o'clock in the morning and go out in the cold and wet, and they don't even bring home so much as a little two-inch bluegill to show for their troubles."

NEXT MONTH:
"Of Chirps, Barks, Bellows & Roars"



It's a Currier and Ives kind of winter and the channel cats are on the take . . . at Wallsville's wonderland in white —

The Lackawanna State Park

by Gerry Kingdom

It was a rock bass, and I knew it was a rock bass. After all, I had had a glimpse of it just as I began to bring it through the ice hole. But those jaws that opened under it belonged to a monster. So when the rock bass suddenly disappeared back into the dark abyss, and the line whizzed like there was a two-ton weight on it, it meant one thing: *war!* I had finally hit into a Lackawanna State Park musky.

The jigging rod, with its two-pound-test line was hardly what you'd call adequate ammunition. And I knew it.

"Let 'im take it," fishing partner, Jim McLaughlin coached from behind.

"Let 'im? Did you say, *'Let 'im'?"* I asked, as the lightweight line began to thin out on the reel. "You don't *let* a

musky do anything. They just do it."

Seconds later, the war had ended. I had lost.

Jim flopped another rock bass onto the ice and offered some consolation.

"Don't look so frustrated, buddy. We've caught one bass, two smaller-than-legal muskies, two beautiful channel cats, and enough panfish to fill your bathtub. You've got no right to gripe."

He was right. But somehow the Lackawanna State Park Lake has a way of spoiling a man. With its uncommon variety of warmwater fish, it's the type of lake where you can get to taking consistent small action for granted and if you don't take home a lunker you find yourself complaining.

The Lackawanna State Park is one of Pennsylvania's newest outdoor recreation centers and its beauty is not to be contested. A winter afternoon at the state park is a day right out of a Currier and Ives lithograph. At virtually every section of the park, you'll find families enjoying the many recreational opportunities that winter brings — ice skating, hiking, playing hockey, snowman crafting, and above all, ice-fishing.

At the center of the park is a 205-acre lake that's surrounded by nearly 1300 acres of scenic, rolling woodland. The lake, which measures about 2-½ miles in length, and has some 7-½ miles of shoreline, is fed by the south branch of the Tunkahannock Creek.

Though fishing at the lake netted minimal results during the first few developmental years, it now provides some of the best action in the northeast section of the state.

Because of the lake's wide range of warmwater species, you can never be certain what you're going to hook into. But lately, it's a safe bet that you'll be tug-of-warring with a channel cat when you do find action. And he'll probably be plenty hefty.

Not too long ago, I ran into park ranger, Edward Rebar, who told me of an incident that typifies the lake's more recent productivity.

"I came upon a family threesome while on patrol and decided to see how they were doing. The grandson was smiling like he had something to show off and he sure did! He, his dad, and his grandfather had iced four beautiful catfish that ranged up to 24 inches. Don't think that they didn't have a good day!"

More than a few Pennsylvania anglers have experienced similar results during the last two winters. The channel cats are on the take at the Lackawanna State Park Lake!

What are they taking? Virtually everything, including lures. Unlike most catfish, who subsist primarily on natural baits that range from doughballs to minnows, channel cats will hit artificial lures with consistency. Jigs and spoons fished through the ice have been very effective recently at the State Park Lake. (And recent successes at the lake should dispell any myth that channel cats don't bite when it's cold.) Other effective baits include dead minnows, chicken entrails, and nightwalkers. Some anglers have even claimed to be successful with Ivory soap, of all things! As a general rule, the fouler the bait smells, the better they seem to like it.

Even though Lackawanna State Park Lake channel cats have been running on the large size, it is best not to approach them with heavyweight line. During winter months, they bite delicately, so your best bet is to stick with 6- or 8-pound-test line.

Though you'll most likely find optimum fishing action near the bottom of the lake, don't overlook other depths if the action is less than good down below.

Here's an approach that works quite well. First, choose your bait, and then work that bait at the very bottom. Give it no more than fifteen minutes; if you get no bites, bring the bait up 4 or 5 feet, and try it there. Repeat this activity until you get to the top. If the bait just isn't producing, try another, and repeat the procedure.

If channel cats don't interest you, perhaps muskies do. And this year should bring plenty of musky action to the state park lake. Muskies stocked during the past few years have been running somewhat under the legal 30-inch mark, but should be nearing or surpassing that point this winter. That will make the lake especially attractive.

Whatever your preference, the Lackawanna State Park offers enough action, fishing and otherwise, to keep everyone in the family happy. And now's the time to enjoy it. Bundle the gang up, stuff the picnic basket with some warm-me-ups, and head to Wallsville in Lackawanna County for a midwinter fishing outing you'll long remember. You just might end up converting some of the crew to the joys of icefishing.





The wide range of facilities at the park, including ice skating, opposite page, makes it a family fun paradise. More serious, perhaps, are the ice fishermen, above, who spread out in search of a school of fish. Young Joe Faux, right, is shown back home with 4 hefty channel cats, the largest of which weighed in at 4½ pounds. Joe had help from his dad and grandfather.



ICE FISH THE SMALL PONDS —

by Richard E. Faler, Jr.

Ice fishermen north of the Mason-Dixon line annually await the forming of that magic three-inch thickness of ice generally accepted as "safe ice". I am among those that wait for the *safe* ice. Unlike many others, however, I do not trudge with the many to little shanty towns on the large reservoirs and lakes. Instead, I turn my back to the tribe and head for farm ponds.

Easily reached, these bodies of water hold practically every species of fish from bluegills and bass to trout and pike. And, believe me, they bite just as well as their kin in the big waters.

Why ignore the ice fishing fellowship and festive atmosphere of the shanty towns, and fish in solitude? There are two reasons. First of all, I enjoy catching fish. The small ponds are usually overloaded with fish. They are often quite large too. Many of the national outdoor magazines have published articles which point to the small ponds as overlooked, underfished havens for fabulous summertime fishing. This is true; but, ice fishing in these ponds is overlooked to an even greater extent.

My dad and I have caught trout, bass, crappies, northern pike and bluegills through the ice on small ponds. Some of these have been dandies too. One in particular was a 3½-pound rainbow I caught on a small grub through two feet of snow and ten inches of ice on an eighteen-acre pond. That is a pretty good fish for any ice fisherman.

Ice fishing in small ponds is extremely easy. The size of ponds permits a quick fruitful search for the hotspots. This, coupled with the concentrated schooling behavior of fish under ice, puts an ice fisherman into fast fishing before the big water angler has his first bite. Most ponds have only one or two hotspots because of their small size. Practically the whole pond's fish population, especially the panfish, will be stacked like cordwood in these spots. This is why I enjoy small pond ice fishing . . . super fast catching!

I'll better illustrate this with my first trip of the '77–78 season. The Friday before New Year's day in '77, I took one of our pastor's sons, twelve-year-old Kyle Bell, to a small one-acre pond located on a nearby golf course. I had never fished it before but had heard that it contained largemouth bass and bluegills — we were after the bluegills.

Surveying the pond, I quickly saw that it was formed by damming a small ravine. I felt that the deepest part of the pond would be their hangout as there was no running water to attract them and I doubted that there were any springs. Calculating the location of the deepest part of the pond by the contour of the surrounding land, I drilled the first hole.

I rigged a rod, instructed Kyle on its use and started to punch another hole several feet away. Kyle yelled and had a flopping bluegill on the ice before I had the second hole finished. That was a sample of our short visit. We experimented with other holes and only got bites in a twenty foot circle. Three hours later we had sixty-nine bluegills and a bonus crappie in the sack. That is fast exciting fishing. I have not found fishing equal to this on the larger well-known lakes.

Another definite plus for the farm ponds, is their availability. Small private ponds and lakes are abundant across the country and more are added daily. Next time the ice thickens and the ice bug bites, turn your back on the big waters. You will enlarge both your catch and your fishing horizons.

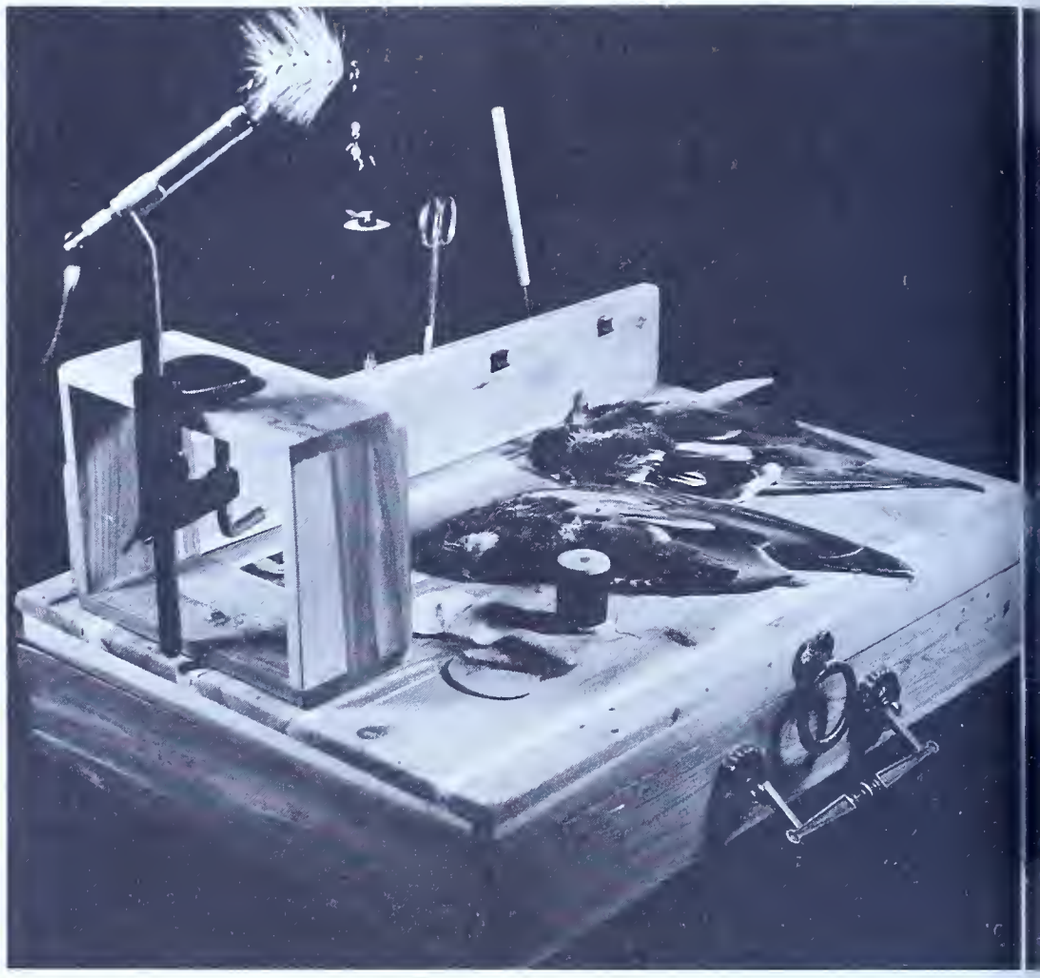
Small ponds such as those the author describes, left, can be big on fishing fun. But, taking nothing for granted—get permission from the landowner. Photo at right pretty well sums up the "luck" enjoyed by this twosome. Kyle Bell, below, holds the only crappie of the day.





Use those idle winter hours to build this

Portable Box for Fly Tying Materials



Photographs and text by Don Shiner

Rainy weather that lasts for days usually sends most vacationing fishermen and campers into hiding. The time weighs heavily. It is a problem to find things to do. Not so for those who include feather materials, or, preferably, a well-stocked tying kit in their gear. With one, even the tent-bound camper with little or no extensive knowledge of fly tying, can put the available time to an advantage by making extra lead-headed jig ties, spinner bucktails, or wet and dry patterns for trout. When rain subsides, they're equipped to go for the big ones with renewed confidence.

The portable box shown here holds lots of feathery and furry materials. It may hold all materials that the average tier accumulates. The dimensions are such that it requires little storage space among camping gear. Kept tucked in a cupboard between trips, the box provides easy access to feathers whenever one feels inclined to work at home.

The box measures 12 x 18 x 3¼ inches. It is made of aromatic red cedar — the same narrow cedar boards used to line moth proof closets in homes. The aromatic odor repels destructive clothes moths, hence it is ideal for safeguarding feathers and fur stored in this box.

The trick in making this box, or any box, is to assemble all four sides, top and bottom into a solid unit. Glue, brads, or wood screws, are used throughout. When fully assembled, sand all corners, raw edges and rough areas on the surface. Then saw the box apart. Allow a narrow portion of the sides to remain as a frame around the lid. That way, the lid is kept from warping as wood dries out.

Give the outside surface two or three coats of clear varnish, but allow the interior to remain raw wood. That way, the aromatic odor is now sealed inside the box where it is needed. Add hinges, handle and clasp to complete box.

The interior is fitted with a special removable partition. This keeps the contents separated and in place when box is carried about. But more than this, when partition is removed and set up on a table, or the box lid, it provides a place to clamp the fly vise. Glue on magnets, or drill holes in the long arm of partition to provide places to hold scissors and other tying tools.

The whole project won't take more than an evening or two to complete. When packed with choice fly materials, it is ready for tying sessions anywhere.

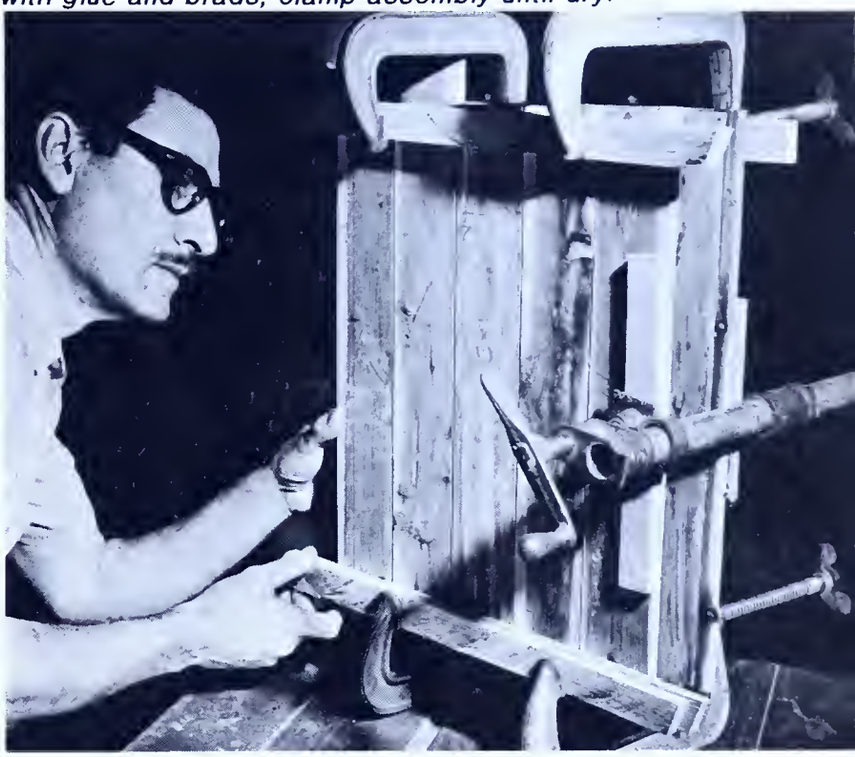
A recent trip to a state park in Pennsylvania demonstrated the value of having a tying kit packed among the camping gear. An unannounced storm moved in and remained stationary for more than a day and it kept most campers inside shelters for the duration. We quickly opened our tote box and set to work turning out extra lead-headed jig flies — just what the walleyes preferred after the storm subsided.

For fair weather or foul, at home or outdoors, this portable fly-tying box will provide many hours of pleasant activity.

Use narrow aromatic cedar boards when assembling this box. This version measures 12 × 18 × 3¼ . . .



dimensions can vary to suit your needs. Assemble with glue and brads; clamp assembly until dry.

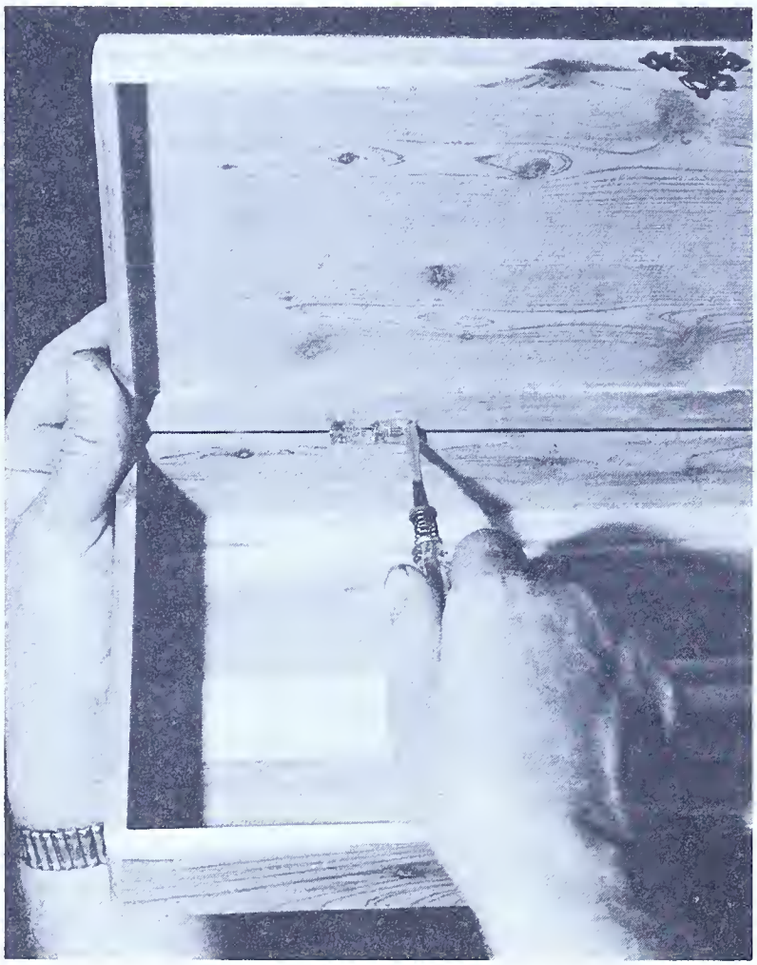


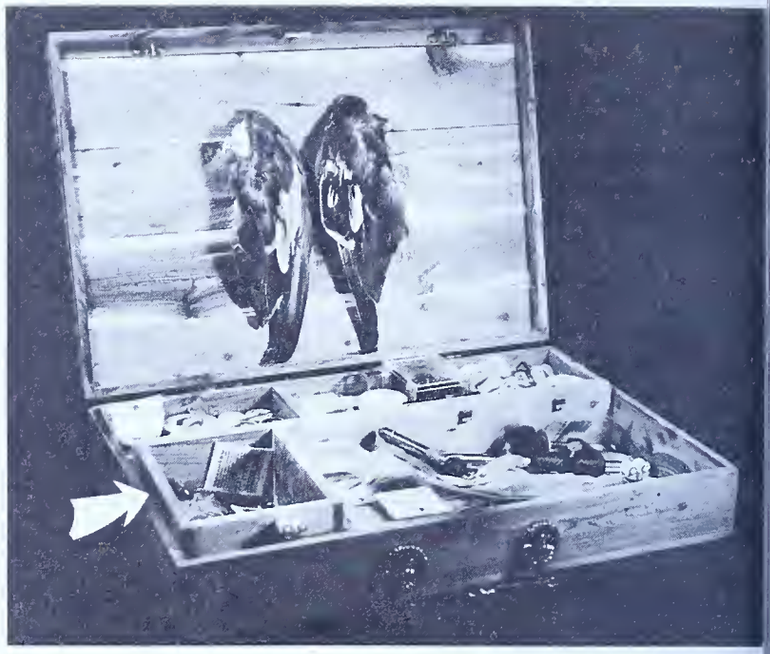
Sand all edges of the assembled box when dry. You can do it by hand or use a power sander.

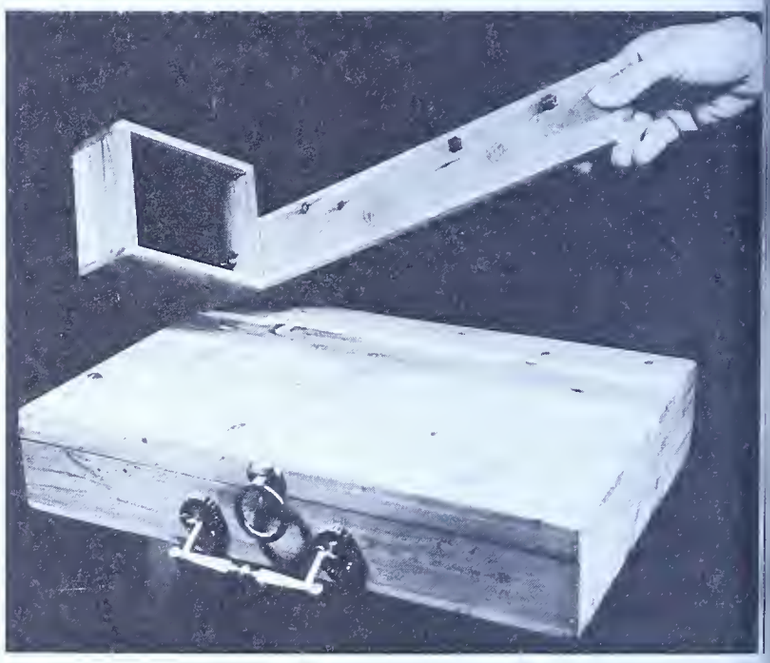


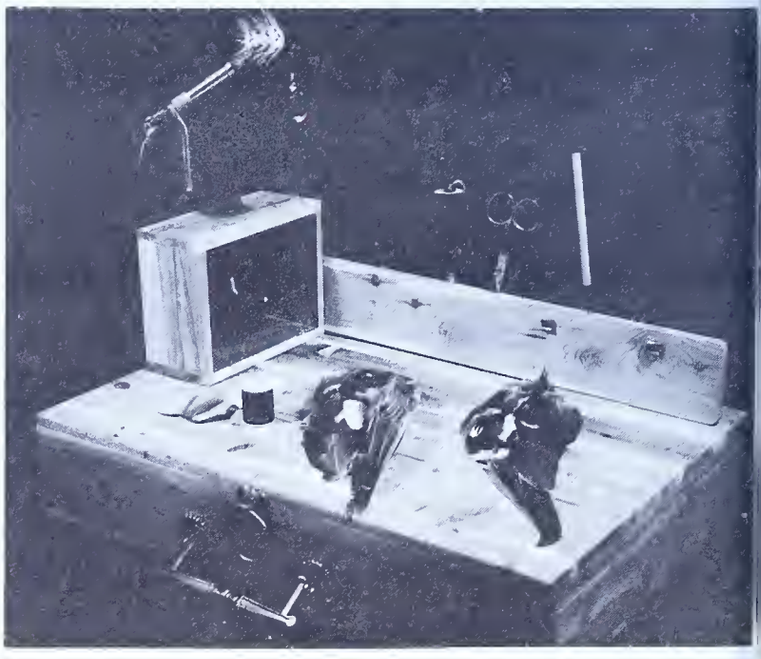
Saw box apart. Allow narrow edge of sides to remain as a frame around lid. This prevents warping of lid.











Add hardware: hinges, handle, and clasp to complete your fly tying material box, above. Photo, top right, shows box packed with material and tools. Note the removable interior partition. It consists of a box-like frame and arm. The arm is attached to the box frame with a bolt and wing nut to allow turning. Center photo shows box frame rotated to "working" position with top of carrying case serving as work space. With fly tying vise clamped in place, bottom photo, you can turn out lures while rain drizzles down outside and be ready to catch the big ones once the sun pops out again and better weather returns.





A frigid morning on the banks of the Shenango River, left, finds a handful of hardy anglers having a go at it. Young Brian Marketich, above, displays three good reasons why.

Shenango River

an icy hot spot

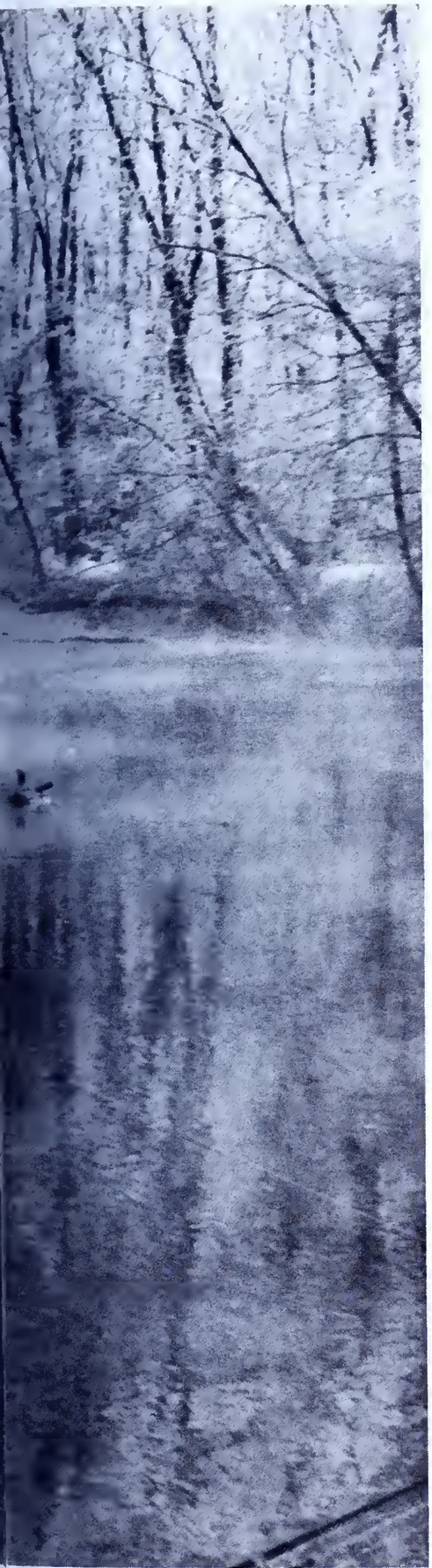
Photo Feature
by Edward T. Gray

Please turn page . . .



An "icy" "hot spot"? Wouldn't seem to make sense unless you spend most of the winter there, like fishing photographer Eddie Gray does each year. "I fished the river almost every day last winter," says Ed. "This is real top walleye fishing—an average of 15 to 20 walleyes are taken each day, starting in November and running right through the winter."

The hot spot is below the Pymatuning Reservoir discharge. Because of the volume of water





" Never send a boy to do a man's work" seems to be the credo when it comes to choosing a landing net for those Shenango River walleyes!

Unidentified angler, below, shows his catch; Jim Prada, right, displays his limit and a lunker taken by the photographer.





being released, this part of the Shenango River never freezes. Air temperatures, however, can dip to 10° below! Anglers dress accordingly. Most of the fishing is done just a half mile below and up to near the dam's discharge.

Live bait and jigs produce good catches in this open water. While all this river fishing is going on below the dam, there is good ice fishing in progress up on Pymatuning Reservoir. Walleyes up to 10-pounders are common.



The Long Rod for Short (and long) Trout

by Theodore E. Kiffer

Prologue

Seventy years ago, a horse-drawn wagon daily carried a slender woodsman and his oldest sons deep into what is now the Allegheny National Forest to where they had a contract to fell and cut logs from a section of timber. With them in the wagon one early morning rode the youngest son, a lad of ten years. He had a lunch basket like the others, but instead of axe and saw, his equipment was a long springy fishing rod and tin lard bucket in which he hoped to carry his catch.

His father showed him where to start fishing and then left him on his own. By morning's end, the lard bucket was filled with sparkling olive

and vermillion native brook trout. Several more times that summer he made the same trip, each time with similar success. His father had taught him to walk softly and, above all, to stay back from the stream and carefully extend his long rod over the pool and then cautiously lower his bait into the water. Those wild brookies, whose instinct was to flee every shadow or vibration of step, could easily be caught by the careful angler with a long rod.

Of all the tools that the fly fisherman employs in his efforts to catch a trout, none has gone through more modifications than the rod. Walton spoke of tapered lines and how to make them by reducing the number of horsetail hairs used in each step. He also talked of the "wheel" on which the line was stored; but, after all, the modern single-action fly reel is little more than a refined "wheel." Hooks have only been lightened and made stronger and sharper. Baits employed by Walton will prove effective today.

But what about the rod? Both Walton and Berner wrote about 16- and 18-foot rods, while other sources in England describe rods up to 21 feet long, weighing several pounds. Can you imagine the stir of conversation, the puzzled looks and the questions that such a derrick would have on, say, Spring Creek or the Yellow Breeches?

Trout rods never reached these gargantuan proportions in America; 12- and 14-footers were considered sufficiently long. Quite the contrary occurred: approximately sixty years ago, the pendulum of fly rod length started to swing the other way. During the next half century, rod makers produced shorter and lighter rods until some champions of the ultralight rods, Arnold Gingrich among them, were using — and catching trout on — rods 4-½ to 5 feet long, often weighing less than one ounce. Opinions, like pendulums, swing from one extreme to the other. During several years recently a mild — and sometimes not so mild — controversy regarding the length of the fly rod has divided the ranks of fishing writers.

Angling writers of national reputation have taken sides, some supporting the standard 7-½-foot to 9-foot fly rods while others have just as vigorously advocated the miniature models as being more sporting. For a while it seemed that those who favored the short rod certainly captured more attention if not more fish than those who stuck with the more standard size. Certainly, reading Arnold Gingrich's accounts of trout and salmon fishing using rods 5 feet long and under is fascinating. The reader wonders if Mr. Gingrich's goal (though not stated as such) was to catch a fish longer than his rod. Catching a sizeable trout on such a "midge" or "flea" rod does possess a certain appeal or challenge. But using such miniscule rods in all situations is just not practical.

Among those who have recently championed the longer rod, probably no one has made a better case than Leonard Wright who makes an eloquent plea for the 9-footer and explains in great detail why the 9-footer is the more effective and more sporting rod. About a year ago one of the national outdoor magazines featured a cover photograph showing a well-known writer smashing a short rod across his knee. It would appear that for him at least, the controversy had been resolved.

But the controversy will continue, for there are certain advantages to both the longer and shorter rods, and fishermen will continue to use the one that has the most appeal for them. Fishing tackle still catches fishermen as well as fish.

In all of this debate, I have been a steadfast fence-straddler or compromiser, because for the past many years I have fished with a 7-½-foot flyrod and have enjoyed great success and pleasure with it. I must admit, though, that there have been those times when I have wished for a longer rod; *never* have I wanted a shorter. The rhapsodic flights of rhetoric employed by some writers in extolling the virtues of the shorter rods for fly-fishing in "brush-chocked creeks" leaves me unmoved. With my 7-½-footer, I kneel in the stream, make short careful casts, watching for hangups on the brush, and do all that one could do with a shorter rod. After all, a brushy stream will permit just so much back casting and maneuvering and a really brushy stream in a cutover area or a tag alder swamp is a barrier to any orthodox fly casting. In all honesty, though, many of the brushy streams are changing: the timber is growing to the pole stage and fishing is becoming easier — at least more open.

In three specific situations, though, I have found myself wishing for a *longer* rod. The first is the difficult, inaccessible lie which can be fished only downstream; the second is the lie which can be fished only by the ancient art of "dapping;" the third is the rare situation in which a large, flat pool can be fished under ideal conditions by the "blow-line" method. Having enjoyed some success in each of these methods during the past several years, I would like to discuss each of these briefly, beginning with the last. Incidentally, the last two methods are not new: Walton mentions them both, especially in his description of the fourth day.

Occasionally, and it seems to happen more often in streams flowing in pasture fields or other open meadows late in the day, trout will begin to feed freely on insects blown into or hatching in the broad shallow pasture pools. Normal casting quickly puts all fish in such a pool down; for in these open pools, the trout are especially wary. The fisherman who comes upon such a pool when a brisk evening breeze has sprung up can enjoy outstanding fishing if he will change his tactics to *use*, not curse, the wind. In "blow-line" fishing, the angler uses a long, light leader — the longer the better — and stands with the wind at his back. Holding the rod at arms length and nearly vertical, he "flies" the fly at the end of the leader much as a boy flies a kite. Dancing the fly lightly on the surface will produce vigorous strikes and is just about the most exciting fishing I have ever experienced. Such fishing has one drawback: the ideal conditions rarely last long, for the wind dies or becomes too strong, or changes direction, and the moment is lost. At such times, I have fervently wished for three more feet of rod in order to keep the leader off the water at greater distances.

A similar style of angling, but not dependent on wind, is downstream dry fly fishing to inaccessible lies. The largest trout I hooked last season (and lost when it snapped my leader) was in such a place. Overhanging brush, trees, and a small pile of driftwood made the tiny pool impossible to approach from downstream. A rapidly flowing current and the shape of the pool made cross-stream casting a futile effort. This particular brown hid out

under the driftwood and fed on insects floating on the swift slick surface of the bathtub sized pool at the foot of a riffle.

I tried for him for a week with no luck; then, one evening during the sulphur hatch I floated my fly down the riffle and "danced" it over the surface of his pool. Three times he chased the fly and three times I missed him because I could not control the fly, especially when the tippet of the leader would sink. Finally, standing on tiptoe, arm extended overhead, I was able to make my fly imitate the struggle of a newly developed insect and was rewarded by a solid strike. The sheer size and weight of the fish defeated me and he broke off — but, *the method worked.* Again, three additional feet of rod would have been most helpful.

Finally, "dapping" or dancing the fly on the surface of a riffle or pool *near the edge* is a good tactic. In fact, the first five trout I ever caught on flies were caught, not by classic upstream casting, but by dropping the flies through openings in the brush that made a small stream unapproachable by any other means. Successful dapping calls for staying out of sight, using a *short* length of line or leader beyond the rod tip, and dancing the fly on the surface of the water near a hideout. Last summer, I tried to introduce a physician friend to the joys of fly fishing, but he had difficulty getting the rhythm of the back cast and the power stroke together. I was beginning to despair when I head him cry, "I got one."

In desperation he had crept to the edge of a 6-foot high bank and had dangled a black beetle fly on the surface. A nice brown hit it almost instantly. I caught a 22-inch brown in Spring Creek several years ago by dapping over his nose as he hugged the shoreline weeds in no more than 8 inches of water. Again, the longer the rod the more successful this method will be.

In waters in which one fishes by the dapping method, he will do well to modify his line a bit. Nothing is more frustrating than to intently dap a fly over a hidden log or bank and suddenly have the weight of a 6 or 7 line drag the line between the stripping guide and reel and snap the fly against the tip of the rod! More than once I have stood helplessly and watched as the line coiled around my feet. There are ways to overcome this frustrating problem: one is to fill a second reel with light monofilament (2 to 4 lbs.) and use it when dapping; the other is to tie a sufficiently long piece of such monofilament to the leader, thus keeping the heavy line on the reel. A small shot fixed to the monofilament a couple of feet above the fly will provide sufficient weight to pull the fly toward the surface and facilitate manipulation of the fly. I must add that this method is highly effective when a tiny treble hook (size 18) is used with small natural insects or larvae.

Though I prefer to fish with the fly and though I do release the great majority of the fish I catch, there are those occasions when I resort to dapping bait and do like to keep a nice "mess" of brookies for the table. When my father, now 80 years old, and I are at the little cabin in Forest County, we enjoy a feast of native brookies; and if I want to contribute my share, I must resort to the kind of fishing that works in the small streams overhung with grasses and brush. The most successful way to fish these little streams is to stay well back, cautiously extend the rod over the often unseen water, and carefully drop the bait or fly to the water.

I have noticed that when Dad fishes with me on Spring Creek or Stone Creek, or any stream that I might consider a "regular" fishing stream, especially one containing browns, I easily catch more fish than he does. But when we fish for brookies in one of the tiny forest streams, he really gives me a lesson and catches not only many more but much larger fish than I can. It became rather frustrating after several years. I had been so busy trying to outfish him that I had never really looked at his equipment. When I did take time to inspect it, I realized why he never accepted my offers of flies that were working for me. Though he used a 9-foot fiberglass fly rod, he could not have cast a fly with it. Attached to the rod was an automatic reel loaded with 4-pound monofilament. The heavy automatic reel upset the balance and would have made casting a fly unpleasant, if not impossible, even with an appropriate line. Dad is not interested in casting flies, but in catching brook trout; and his equipment was most appropriate.

The advantage of the 9-foot rod is readily apparent: he could stand at least a foot and a-half farther back from the stream; and, if fishing for wild brookies in gin-clear water, that foot and a-half makes a big difference. The automatic reel enables him to quickly strip out and take in line with ease.

I have been so concerned of late about balance between rod and line, and using a line that would properly "load" the rod to bring out the action, that I completely overlooked the possibility of using unbalanced tackle. Thus I must always have room to swing or flip my rod in order to send the bait to an attractive pocket. Dad simply pokes his rod, with bait reeled right up to the tip, out over the water and drops the bait through the smallest opening. He is able to fish the most inaccessible places and thus consistently catches the larger fish that have been living in the security of such hideouts. This is clearly one instance in which the long rod is most appropriate for short fish.

As indicated earlier there are those times when the longer rod has distinct advantages in fly fishing, too. I think I have found the ideal solution. When I venture forth next spring, I'll be using a feather light 9 foot 3-inch graphite rod with my 7-½-footer in reserve. Look out, trout!

Epilogue

Last summer, an eighty-year-old man, his son, and his grandson left the cabin in the Allegheny National Forest, drove several miles along a forest service road, then parked and hiked back into the forest on a weed-choked, long-unused logging road. Arriving at last at a small stream, the grandfather and grandson started fishing. The grandfather, moving slowly and cautiously as he had been taught seventy years ago, carefully extended the tip of his 9-foot fiberglass rod to the pockets and pools of the stream and soon had a limit of beautiful brookies.

Walking back to the car, he reminisced of the past and commented on the changes, especially in himself. But a few old friends from the past — the ancient stone foundation of a water-powered mill, the stream itself, and the wild trout untainted by any hatchery strains — hinted of the certainty of the future. These must endure.

How Big Should A Bass Be?

(Or, What's a "Keeper"?)

by Delano R. Graff, Chief,
Division of Fisheries



"What do we do about smallmouth bass in streams and rivers? Should we impose the same size limit on smallmouth as on largemouth?" "Can fishermen cope with a different size limit on smallmouth and largemouth?" These are questions facing fishery managers.



One of the most useful tools available to the fishery manager is the size limit. The size limit is one regulation which affects every fish caught and it can be set to effectively protect a portion of a fish population from angler harvest. If a size limit is set too low, it will accomplish nothing; if it is set too high, the result will be essentially a catch-and-release fishery. In Pennsylvania size limits are used in the management of all gamefish. Some of Pennsylvania's size limits on fish are the result of tradition — the old "*It's always been this way*" school of thought — others are established on a biological basis to meet a specific management objective.

One of Pennsylvania's size limits which has recently attracted a great deal of angler interest is the 9-inch limit on bass. This size limit is imposed on both largemouth and smallmouth bass. Traditionally, the 9-inch limit was to protect young bass and ensure that enough spawners would be saved to perpetuate the population. With the exception of a very brief period in the mid-1950's, Pennsylvania has enforced a size limit on bass despite the claims of some fisheries workers that size limits were not necessary. Recently, most biologists involved in fisheries management have recognized that size limits on bass are necessary and trends are to enforce size limits *higher* than those now in effect for bass in Pennsylvania. A number of anglers and clubs, most of them associated with a state and/or national bass anglers organization, have been proposing that the size limit for bass in Pennsylvania be increased. The most commonly suggested size limit has been 12 inches. Commission biologists have evaluated the pros and cons of an increased size limit for bass. It is quite evident that changing the size limit on bass is not a simple matter.

The question most often asked is: Why change the size limit, hasn't 9 inches been good enough for many

years? There is no easy answer to that question. In fact, it gets rather confusing. Has 9 inches been "good enough"? The answer is yes *and* no; or, worse yet, good enough for what?

It's tough to define *good* bass fishing. One angler's overfished lake is another's "hot spot." The personal standards of anglers vary and even biologists differ in their opinion as to what constitutes a good bass population. The whole issue of size limits for bass has evolved into a problem of "quality." "Quality" is tough to define and even tougher to defend as the basis for a fish management program. It does seem that in this era of intense angling pressure and sophisticated gear and angling techniques (such as electric trolling motors, fish finders, plastic worm fishing rigs, effective new lures, bass tournaments, etc.) that largemouth bass populations in the average Pennsylvania lake are often not providing a "quality" population structure under the 9-inch size regulation.

In the midst of all the confusion and difficulty in defining terms, there are some things that are definite — well, at least in the category of a firm "maybe". Overfishing (whatever it is) seems to be a fact on some of our lakes. We see what at least we in the Pennsylvania Fish Commission consider warning signals of overfishing in certain lakes. These warning signals include populations with relatively few large bass, apparently high rates of mortality in young bass, poor recruitment of bass to legal size, and overpopulation or "stunting" of panfish, such as crappies or bluegills.

The sportsman's traditionally favorite solution to poor fishing, "Stock bass" has no effect on the problem and is not a solution at all. The best way to improve or maintain the quality and structure of bass and associated panfish populations seems to be to set a size limit high enough to protect bass until they are effective predators. Since it seems we have a number of lakes in Pennsylvania where fishing pressure is great enough to crop off a significant portion of the legal bass, there is apparently some validity to the claim that the 9-inch size limit is not doing the job.

A 12-inch size limit has been proposed by organized bass anglers as the solution to problems of overfishing (actually overharvest) of bass populations. Their objective is to create or maintain a bass population in which a significant number of the protected fish would be large enough to provide good sport to anglers, even though much of it would be on a catch-and-release basis, and also large enough to serve as effective predators on associated populations of panfish. This objective of establishing a size limit to improve the size composition, hence quality, of a bass population and create a better panfish population is a far cry from the old idea of ensuring that enough spawners are protected to carry on reproduction.

If a size limit is used to "improve" a bass population, what happens? One thing that can be expected if overfishing is occurring is the buildup of a high density of bass just below the legal size. It has been noticed in other states that establishing 12- or 14-inch limits on largemouth bass can cause an accumulation of fish which are almost, but not quite, legal length. The growth rate of bass may decrease — perhaps as a result of competition due to the buildup of the larger size fish. If this happens, the result should be a high catch rate on bass but with many sublegal fish. This is not very different from what we find under a 9-inch size limit except the fish being caught and released will be larger and should provide more exciting sport. Another effect of the buildup in predators should be a decrease in the numbers of panfish such as bluegills and an increase in the growth rate and average size of bluegills.

So far the 12-inch size limit looks pretty good — a sacrifice in the numbers of fish that can be harvested but better panfish and a high catch rate on nice-sized, hard-fighting bass. Why not go immediately to a 12-inch size limit? Despite the fact that imposition of a 12-inch limit looks simple, it isn't. For one thing, we really don't know if 12 inches is the magic "right" size — much of the work done on size limits was with an even higher size limit. Also, due to a number of factors, the response of fish populations to increased size limit varies from lake to lake. In addition to those concerns, virtually all the good data on the use of size limits to manage bass comes from studies of largemouth bass in lakes and ponds.

What do we do about smallmouth bass in streams and rivers? Should we impose the same size limit on smallmouth as on largemouth? For years the same size limit (9 inches) was imposed on both species so we have a precedent for using the same limit. On the other side of the coin, we know that population dynamics and growth rates of smallmouth bass differ significantly from those of largemouth in Pennsylvania. We also know that there are many stream populations of smallmouth where a 12-inch size limit would be unrealistic since the vast majority of fish do not achieve 12 inches in length. We suspect — but as yet cannot verify with facts — that smallmouth bass in our better waters (such as the Juniata River or the Susquehanna River) are not as affected by angling as are largemouth in our relatively small impoundments. With the information now available, it appears that the best management would be to have a different size limit on smallmouth and largemouth.

Can fisherman cope with a different size limit on smallmouth and largemouth? We really don't know and probably won't know unless a new regulation is actually established. The concern is that the "average angler" can't tell a smallmouth from a largemouth or vice versa. Perhaps this is a legitimate concern. I don't think so. I hope those who advance this argument are simply underestimating the ability of the "average angler" to identify fish. After all, if a duck hunter has to make a proper identification of a bird in flight before shooting, surely an angler with a fish in hand should be able to distinguish between largemouth and smallmouth bass. Fortunately for the "average angler" who can't tell the difference, we have only a relatively few waters in Pennsylvania where one can *regularly* encounter smallmouth and largemouth in the same area — *in appreciable numbers.*

It has been suggested that the possible problems arising from difficulties in identification of smallmouth and largemouth bass could be avoided if the size limits were changed according to habitat rather than fish species. The suggestion is to establish one size limit for bass in ponds, reservoirs, or lakes and another size limit for bass in rivers and streams. A higher size limit, perhaps 12 inches, for bass in ponds, lakes and reservoirs would, in most cases, mean a higher size limit for largemouth. It would provide, essen-



". . . studies demonstrate that changing a creel limit a few fish here or there makes no discernible difference in fish populations."

tially, species management without requiring the angler to identify species. There are those who view this approach as impractical. Potential problems include deciding where a river ends and a reservoir begins; anglers with 9-inch bass in their creel could claim they caught the fish in the "river." As with species-based size limits, a great deal of consideration must be given the advantages and disadvantages of "lake versus river" approach to bass management.

Perhaps the ideal approach to solving "overharvest problems" on bass is to manage by water area "type" or resource classification. An example might be that all lakes and ponds with a surface area of 500 acres or less would have a size limit of 12 inches (or higher) while all lakes over 500 acres and all streams and rivers would have a size limit of 9 inches for bass. There's nothing magic about 500 acres, it just appears that less than 500 acres is about the size where we begin to see evidence of "overharvest" of largemouth bass. This approach is not without drawbacks. It is probable that a list of lakes could be published that are close to 500 acres so anglers would be sure of the regulation on those waters and that appropriate signs could be posted at parking lots on publicly owned areas. This would still leave many, many smaller lakes and ponds which would require the angler to be aware that the surface acreage is less than 500. This could become as simple or as complicated as people want to make it. (Based on experience with laws and regulations, Americans seem to like to make things as complex and tangled as possible.) As I mentioned before, it is quite evident that changing the size limit on bass is not a simple matter.

What will happen to the creel limit if size limits are different for largemouth and smallmouth? Good question, and one which we cannot answer at this time. From a purely biological viewpoint, it seems simple, just set the creel at 6 for each species — that is, 6 largemouth and 6 smallmouth. Since the two species tend to be generally found in different waters, the change shouldn't lead to any appreciable problem of "fish hogging" or overharvest. From a viewpoint which is not purely biological — that is, a social viewpoint and, to a certain extent, a law enforcement viewpoint — the changing of the creel limit from "combined species" to a single species may not be viewed favorably. It is a question which merits (and will be given) a great deal of careful and objective consideration. In any event, creel limit is not nearly as important in managing fish as size limit. This idea, that creel limit is not a very effective tool, flies in the face of "conventional wisdom," but it's a fact. There are many studies which convincingly demonstrate that changing a creel limit a few fish here or there makes no discernible difference in fish populations. Size limit is much more critical than creel limit. Without going into great detail, one can appreciate why this is so: a size limit operates on *every fish* that is caught. A creel limit does not affect harvest until the angler reaches the "limit." Think about it, we've all had more bass fishing trips where we caught 4 or 5 "legals" than 6 "legals." The creel limit didn't figure in how we "harvested," but the size limit surely did.

How big should a bass be? This article hasn't really answered that question, but it is hoped that anglers begin to appreciate that for largemouth, at least, a bass should be larger than 9 inches if quality and true "fishery management" is to be considered. The bass anglers who are advocating a higher size limit for largemouth bass have a valid point. Should the size limit on largemouth eventually be increased, it will be for valid reasons and not in response to social pressure or to "please" any identifiable special segment of the angling public.

I can't say what the future holds relative to how big a bass should be. I do know that if I were an "average angler" who fishes for bass, I'd be boning up on my fish identification — largemouth versus smallmouth — just in case!

Restoration of a Trout Stream

by Don Kingery

Its name is Deer Creek, and like hundreds of other small streams in Pennsylvania it was marginal trout water. Chemically, the water quality was adequatc, and the flow, although decrcasing in the warmer months, was sufficient to support trout. The stream bottom provided a fair amount of shelter for fish, and bank erosion wasn't excessive. The accessibility to anglers was good, and the amount posted was sparse. Aesthetics, however, were marginal, due mostly to extensive deposits of trash and litter left by thoughtless individuals. These werc the conditions in August of 1966 when the Allegheny County Sportsmen's League requested a stream survey by the Pennsylvania Fish Commission to determine the feasibility of making Deer Creek a stocked trout stream.

Thc survey, run in June of 1967, resulted in approval of 6½ miles of Deer Creek for pre-season stocking of rainbow trout on an experimental basis. The first actual stocking occurred in 1968 and consisted of 1500 trout originally allotted to North Park Lake. In 1969, anglers saw the pre-season stocking rise to 2250, and in 1970 it rose to 3000. Thc following year brought an experimental in-season stocking of 1500 more Rainbows. The spring of 1972 brought disaster! The water quality exhibited serious deterioration due to excessive organic enrichment. Aquatic life in some areas of the stream decreased by as much as 95%. These conditions resulted in termination of the in-season stocking, and an investigation by the Fish Commission.

The investigation pinpointed several sources of organic pollution along Deer Creek. A commercial laundromat was found to be discharging phosphate-rich waste directly into the stream. This information was forwarded to Thc Department of Environmental Resources which took action resulting in the eessation of the discharge. A septic tank scavenger was discovered to be dumping wastes in a ficld adjacent to the creek. This raw sewage was draining directly into the strcam. This individual was restrained from further dumping, and action was taken to stabilize the dumping area itself. The last major source of pollution affecting Deer Creek had no single easily removable cause. There were many contributing factors, including runoff from pastures and leaching from numerous private septic systems. The problem was solved by the eonstruction of an advanced sewage trcatment plant on the west branch of the stream.

After elimination of these pollution sources, the stream started a rapid recovery. By the spring of 1973 the water quality had improved to such an extent that not only was stocking resumed, but an additional 1½ miles of stream was approvcd. This brought the stockable section of Deer Creek up to its prcsent length of 8 miles. In 1974 the Fish Commission reelassified its distribution of trout, basing it on a combination of license sales, suitable public land and water, and population in each county.

Allcgheny County, with its large number of lieense sales, received a substantial incrcase in stocked trout. Deer Creek's portion amounted to 5800 rainbows for pre-season stocking, and another 17,400 trout were distributed in four in-season plantings. These brown and rainbow trout were distributed evenly throughout the stream by local sportsmen who turned up to help float-stock the entire length.

As watcr quality continued to improve, attention was turned toward improving trout habitat throughout the stream. In 1975 stream improvement devices were installed in the Emberling Park section of stream. The work was performed by several troups of Boy Scouts from Northern Allegheny County under the supervision of the Pennsylvania Fish Commission. The work consisted of installation of deflectors and small dams. The purpose of the dams was two-fold: first, to create pools in areas of good trout cover; second, to concentrate the stream flow during periods of low water. To accomplish this, the dams were constructed of boulders large cnough to prevent their washing out during highwater periods, but spaee was left for water to pass through the center. The deflectors were also built with materials found at the sites. Their primary purpose was to prevent bank erosion and consequent silting of the stream. They also contributed to narrowing of the stream flow during the summer months.

During the widening of Route 910 in the spring of 1976, additional work was performed on the stream. The Pennsylvania Department of Transportation and the contractor working on the section of road adjacent to Deer Creek provided quantities of stone for installation of rip-rap after their portion of the construction was completed. The Dorseyville Junior High Conservation Club used this stone to build stream improvement structures in the areas disturbcd by the widening of the road.

These devicc upgraded the carrying capacity of Deer Creek considerably. Not only was shelter and habitat increased for adult trout, resulting in less migration of stocked fish and more holdovers, but suitable spawning habitat was also formed. The stream had rapidly rid itself of much of its silt, producing many stretches of clean gravel. The holdover trout were quick to take advantage of this. The gravel bottom also provided excellent habitat for the aquatic invcrtebrate that young trout feed on, and with this abundant food supply, thc trout grew rapidly. A stream survey conducted in the fall of 1976 revealed numerous young brown trout and a sprinkling of young rainbows. A fair proportion of these "natives" became "keepers" by the time trout season opened in 1977. These, plus thc large number of holdover trout revealed by the survey will be an extra bonus for Allegheny County sportsmen in years to come.

More Leaky Boots . . .

(continued from page 3.)

light jolt after we came into the docking rea. I had gone up to the parking lot to get he boat trailer and when I came back, I ound the Waterways Patrolman stu-liously writing in what looked like his itation book. My husband, meanwhile, vas giving the boat a quick mental check: PFD's, check; fish limit, OK; license, heck; only the two of us in the oat . . . couldn't be that; broad day-ight . . . didn't need running lights yet; we vere rowing the boat . . . couldn't be that ither! Finally, (after what seemed ages) e handed my husband a ***Safe Boating Sticker*** to put on the boat.

Thanks again for a lot of great fishing.

MRS. RICHARD PACHER
North Wales

RIGHT ATTITUDE —

My fishing cronies and I went to three of he best fishing spots in Pennsylvania with ear and equipment up to our teeth, not to nention two issues of the *Pennsylvania Angler* under our arm. We were the icture of preparedness. We fished at every pportunity, enjoyed the changing leaves, aggles of geese and an occasional deer. Even the rest rooms were impressive, all of hem clean and well-supplied.

So, thank you *Pennsylvania Angler,* for howing us where to go and what to do vhen we got there. We had a great week-nd. The fact that none of us caught any ish did not dampen our spirits.

BILL LOTTER
Philadelphia

HOW'S IT DONE?

Could you please send me any informa-ion you might have on how to preserve almon eggs at home? My husband fishes ake Erie every fall and no one seems to now how to keep the salmon eggs. We ave heard you use Borax but have no ther instructions.

MRS. GERALD FOX
Ridgeway

Your question on preservation of salmon ggs was referred to me. I didn't know the nswer so I called our salmon station in rie. Evidently this is a common question nd we don't have a really good answer. I'll ass on what I've found:

1. **Use Boraxo or any other brand of borax you can find.**
2. **Place the salmon eggs in a shallow dish or pan and spread them around so there is only one layer.**
3. **Sprinkle the eggs with borax, roll the eggs around to be sure they are completely covered with borax.**
4. **Let the eggs dry, use as needed.**

I still don't know how long the eggs will stay "good." I couldn't find out if you can put eggs treated with borax in a jar and hold them for a long time or whether they must be used within a short period.

I've taken the liberty of passing your letter on to James Yoder, Editor, *Pennsylvania Angler,* with a request that he place it in the magazine. Perhaps one of the *Angler* readers could help you by providing better instructions.

Sincerely yours,
Delano R. Graff, Chief
Division of Fisheries

"...A PHILOSOPHY FOR THE MODERN TROUT FISHERMAN"

Is it possible to hero worship a Chief of Fisheries management? I've been a fan of Del Graff for some years, reading his *Angler* articles and answers in Leaky Boots, as well as hearing him speak on several occasions. His "***Message to Quality Anglers***" is more than a plea for support. It is a philosophy for the modern trout fisherman. And while many, if not most, of the membership of Trout Unlimited may not realize it, Mr. Graff has done an excellent job of restating Trout Unlimited's original intent.

Mr. Graff should know there exists a core of fishermen who understand his point and support his position. Fishermen who are less concerned with vibert boxes and special regulations than they are with sound management practices based on both the needs of the resource and the resource users. Fishermen who are willing to work with and support, in any way they can, the professional managers when those professionals make their decisions based on the kind of data being collected in Pennsylvania now.

Once I loosen the economic strings binding me to Southern California and am able to return to my home streams in Pennsylvania, it's good to know a sincere, intelligent, clear thinking manager, Mr. Delano R. Graff, has kept track of those streams while I was gone.

DAVID D. HENDERSON
Tujunga, CA.

SHE'S GOING TO TRY!

I never wrote to the *Angler* before but am an avid fisherwoman. I am 78 years young and love to fish and hunt. As I caught this beauty on June 29, 1978, I was wondering if you would like to put this in your magazine. This fish was caught on a #3 Mepps minnow with a 10-pound-test line. It took me 45 minutes to land it — it was 46½ inches long and weighed 28 pounds. It was 20 inches around. It was only fourteen inches shorter than I am. The next one will be as long as I am tall! At least I am going to try. I have been a subscriber of your magazine for a long time.

MRS. GRACE WHITESEL
Mill Hall

Congratulations, Grace, you've really got the spirit! At first glance we were wondering how you were able to hold up that musky so easily . . . then we noticed an extra pair of sneaks, an extra ear, an extra shoulder — good trick! We'll have to try it sometime . . . providing, however, we're ever lucky enough to need help with a trophy like that! Ed.



"WITH THE BEST . . . "

I am a lady fisherman and hunting lady. I love to go to the state lakes or streams for all-around fishing and love to bass fish. I read your suggestions of what to use in the *Angler.* I go buy the product and away I go. I can catch fish with the best of fishermen but I have to use my own technique of fishing. I bet I can match fishing with Ed.

TRACY MATTHEWS
Lemont Furnace

So? Who can't? If you can catch fish with "the best of fishermen," include "Ed" OUT! Ed.

A Worm That Turns

by Chauncy K. Lively
Photos by the author



You may bend the Flexi-Inchworm to zig to the right or zag to the left.

There is a time in the fly fisher's season when his thoughts turn to worm fishing, but with a twist. It's not the type of worm angling many veterans practice a month earlier with such artistry and deadly precision. Rather, it fits the mold of conventional dry fly fishing to surface-feeding trout in almost every respect except pattern and delivery. In late spring and early summer, along streams with broad-leaved shade trees on their banks, the inchworms appear, dangling from nearly invisible filaments to drive trout crazy. Find a hardwood tree overhanging the water during inchworm time and you'll most likely find several good trout beneath it, daring the succulent larvae to touch the surface.

Inchworms — or measuring worms, as they are often called — are the larvae of the Geometrid moths (also called Geometer moths by some authorities). The Family Geometridae is a large group comprising some 1,200 species in North America and they are common in all regions of the U.S. As one would expect, the many species show a wide range of coloration in both larvae and adults; however, the familiar pale green inchworm seems to be a favorite with trout and it is prevalent along most trout water.

In the early 1950s I began tying and fishing an inchworm pattern dressed with a single bunch of deer body hair bound as a slim, cylindrical bundle on a long-shanked hook. There was a short extension of the body behind the bend of the hook and I felt that the long-shanked hook was necessary for good hooking. The pattern was very successful but I've since changed my mind about the long-shank requirement and it is now dressed on a hook of regular shank with a body extension about equal to the shank length. The extra extension exploits the flexibility of the deer hair, permitting it to be bent in a curve to the right or left and upward or downward. This more nearly simulates the posture of the natural inchworms, which seldom float along ruler-straight. Nor did I find the shorter hook and longer extension to be a hindrance in hooking; trout take inchworms with gusto and they are often hooked deeply.

Gerald Almy, in his excellent new book, *Tying and Fishing Terrestrials,* stresses the audible impact made by land insects alighting on the water as a factor attractive to trout, and it is a valid point. Few terrestrial insects are endowed by nature with the delicate structure and bearing of the Ephemeroptera. Generally heavy-bodied and lacking in air resistance, their entry to the water is more collision than landing and trout become attuned to this dinner signal, often moving a considerable distance to intercept their hapless prey. In addition to the audible aspect, anything striking the water with force creates a geometric, starshaped burst on the mirrorlike underside of the surface film, visible a long way under water, and probably appearing as a brilliant flash of light to a trout.

Once we were on Young Woman's Creek during inchworm season when the water was extremely low. There was virtually no current in the crystal-clear pools and prospects for good fishing appeared to be negligible. But we found that as long as we kept well back from the water and maintained a low profile, the trout were more than willing. It's a bit rough on one's knees, fishing from a kneeling position on odd-shaped rocks, but the deer hair inchworms were delivered with a soft 'splat' and, invariably, three or four wakes would streak toward the disturbance from different directions. Of course, the commotion of landing a trout would often put down the others but we covered a lot of water and a respectable number of fine trout came to net.

With a few exceptions, dragging a dry fly upstream is not acceptable practice but with inchworms it's different. The naturals often descend to the water with their strand of filament angling downstream against the pull of the current. They are also able to retrieve themselves, as if being reeled in from above, and when this occurs they scoot upstream on the surface before becoming airborne. I've found that simulating this maneuver can be an effective way to fish pocket water. Using a short line and high rod, I like to cast to the downstream end of a likely pocket and drag the artificial upstream with little or no leader touching the surface. It's not necessary to use fine leaders for this type of fishing; in fact, it's advisable to use tippets of heavier gauge than normal because the rises are often explosive.

The Flexi-Inchworm is an improved version of the original pattern and it lends itself both to conventional upstream work and pocket skittering because it is virtually unsinkable. Almost any shade of dyed green deer body hair will do but my personal favorite is pale, whitish-green. It not only matches many of the naturals but it is extremely visible under the shaded situations where one normally fishes inchworms.

FLEXI-INCHWORM

Hook: #14 or #16, regular shank
Thread: Pale green Monocord or nymph thread
Body: Deer body hair dyed pale green

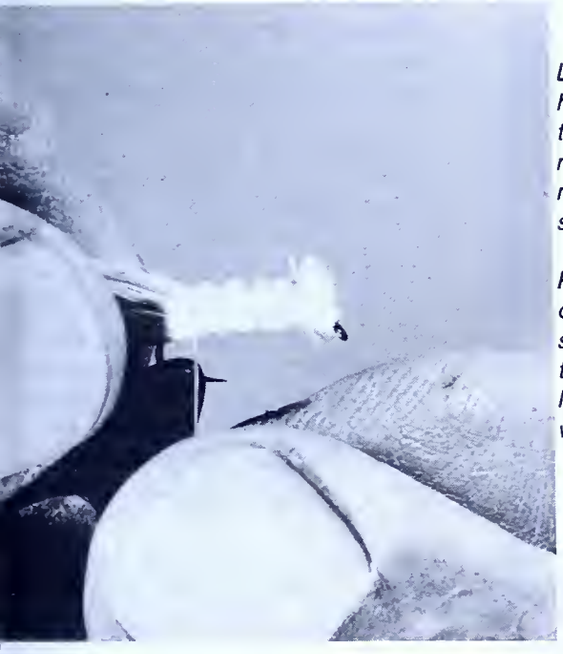
Dressing the Flexi-Inchworm:



Left — Tie in waxed thread behind eye of hook and wrap shank in spaced turns back to bend. Then reverse directions and wrap to beginning point. Half-hitch. Cut a bunch of dyed deer body hair about as thick as a pencil. Stroke out short hairs and fuzz.

Right — Hold hair in a bundle on shank and bind to hook just behind eye, allowing about 1/8" of butts to project in front.





Left — Holding hair in place with left hand, spiral thread in firm, spaced turns toward bend. Slide left hand to rear as winding progresses, always maintaining position of hair on shank.

Right — When you reach the bend, continue to wrap hair in a free extension for a distance about equal to the portion already bound to shank. Make two extra turns at rearmost winding.

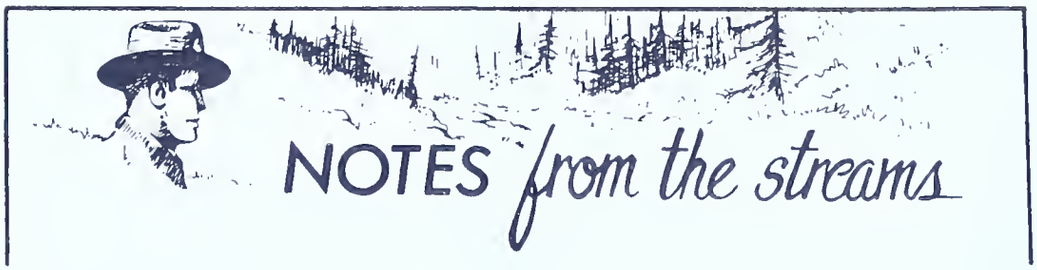




Left — Then wind thread forward in similar spacing to eye. Whip-finish, as shown.

Right — Trim off excess hair at rear and finish-trim to a rounded profile. Trim hair in front to a neat head and apply black lacquer (as shown) to head and finish windings. Then apply clear lacquer to extra winds at rear.





SOME PADDLES!

One day while patrolling the Delaware River, we encountered two college boys preparing to take on all challengers in a canoe race. The canoe was amply supplied with the required saftey equipment and, in addition, a large tub with ice and amber-colored refreshments for "fuel." The propulsion gear was unique: two large snow shovels!

Frank Schilling
Waterways Patrolman
Philadelphia County

PATIENT. . .

It seems that we have a true musky fisherman in our area by the name of Fred McClintock, of Trout Run, Pa. From October 30 to November 4, 1978 he fished approximately fifty hours and landed eight legal muskies which ran from 32″ to 40″ at Hill's Creek State Park Lake and he released them all so they would get a little bigger. The problem is the cook loves fish, especially musky, and is getting a bit tired waiting for them to get larger. Fred, you'd better bring one home to the cook!

James H. Lauer
Waterways Patrolman
Lycoming County

EARLY BIRDS!

I recently had two visitors at 6:00 a.m. One of them, Bob Lasko, had a northern pike which he thought might be a state record. It measured 44½ inches and weighed 24 pounds. Although it was one inch short of the state record, it was two pounds heavier. What was just as interesting to me was both anglers also had their limit of nice walleyes.

Paul R. Sowers
Waterways Patrolman
Warren County

"BATCH" O'SNAPPER —

On routine fish law patrol of the Allegheny Reservoir, I struck up a conversation with a fisherwoman. Soon she asked, "Are there any snapping turtles in this water?" "Most likely," I answered. "However, there would be more in a swampy, shallow-water location." "I'd like to get one to make a *batch* of turtle soup," she added. I inquired, "Ma'm, what part of south-western Pennsylvania are you from?" With a puzzled expression on her face the lady said, "Freeport (Armstrong County) . . . how did you know where I'm from?" I smiled and replied, "Anybody who is going to make a *batch* of anything has gotta be from that neck of the woods!"

D. F. Parrish
Waterways Patrolman
McKean County

COME BLOW YOUR HORN

This past summer was an interesting one and to say the hours spent on boat patrol were enlightening would be a gross under-statement.

One incident that sticks in my mind occurred near lock #4 in the proximity of Natrona, Pennsylvania. Special Waterways Patrolman Dickler and I spotted an older style runabout with a numbering discrepancy and stopped the boat to advise the operator of the violation and to check his craft for required safety equipment.

The operator displayed his equipment with little prompting and didn't hesitate when asked to demonstrate his sound producing device. It seems he had experienced some problems with the wiring to his horn, however, being the quick-thinking individual that he was, he had unscrewed the 'bell' portion of the horn and when asked to blow, blow he did, producing a beautiful two-second blast in a distinctive, Louie Armstrong fashion!

Barry Pollock
Waterways Patrolman
E/Allegheny County

FROM YOUNGSTERS . . . MANY "MAN-DAYS"

Much has been said about today's youth and how everything is handed to them. . . They don't have to work for anything. Balderdash!

Last summer I had assisted many different youth groups in constructing stream improvement devices on our streams. All these groups are youngsters. I received only several "man-days" from dedicated adult sportsmen. The rest of the work was "child labor."

My hat is off to the Bishop Hoban High School Environmental Education Class, the YCC from Nescopeck State Park, the Sugarloaf 4-H Wildlife Club, Troop 606 Boy Scouts from Hazleton and the "other kids" that just came along for the "fun of it."

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

SOMETHING DIFFERENT —

Because of scheduling conflicts it became necessary on one occasion to settle a fish law violation case at a defendant's home.

Arriving at the prearranged time, we proceeded with the settlement as is normally accomplished at the State Police Barracks. When we had completed our business and were preparing to leave, the defendant made a comment that we had never heard before: he didn't realize we made "house calls!"

Frank Schilling
Waterways Patrolman
Philadelphia County

ONE BULL OF A FIGHT

Late one night during this past summer, Deputy Waterways Patrolman Harry Stewart was trying his hand at bass fishing on a farm pond near his home. Suspecting that a lunker may be enjoying the moonlight in the shallow, cattailed end of the pond, Harry gave his surface popper a cast in that direction. A sudden jerk followed by several minutes of loud splashing convinced Harry that he must surely have a record lunker hooked.

The fight continued in the darkness when Harry realized that his 'lunker' had wrapped his line around some cattails. Determined not to give up, he waded into the pond but was soon up to his armpits. He then sent his son around the shoreline and into the cattails to give him a hand. A short search revealed the fighter which turned out to be a huge bullfrog that had snatched the popper with the tip of its long tongue and was fighting with all of its might. With a bit of effort the frog was unhooked and released.

Guy A. Bowersox
Waterways Patrolman
Montgomery County

ROM WHENCE?

One evening I received a call from eputy Waterways Patrolman Joseph Vaiter informing me that a young teenage esident, David Selecky, of the Honey Pot ection of Nanticoke, had delivered (alive) o his home a strange fish that he had just aught in the nearby river. When Officer Vaiter got through describing the fish to ie over the phone, I thought to myself, This I have got to see," and instructed im to keep the fish alive. I was on my way o make the 12-mile trip to his home to see or myself.

At first I thought it must certainly be a rossbreed. The following day, with the aid f the regional biologist, one of my tropical sh aquarium reference books, and the elp of Dr. Reynolds and one of his assis-ants from the nearby Penn State Exten-ion Campus, we were able to identify the sh as a giant ***Gourami,*** a native of the . Indies. The fish normally reaches about inches in an aquarium and we have come o the conclusion that this one, at almost 12 nches long, outgrew his aquarium home nd was released to fend for himself in the usquehanna where he fell prey to the sherman's hook and worm.

The fish lived for us for several days efore finally giving up the ghost. He was reserved and displayed at the Luzerne ounty Fair and finally has met his final esting place, in the laboratory of the Penn tate College for research purposes.

Claude M. Neifert
Waterways Patrolman
N/Luzerne County



Deputy Urban holds most unusual Susquehanna catch ever: a Gourami!

THEY NEED HELP!

After apprehending two local residents or fishing in the Farnsworth CO-OP Nursery Ponds, Deputy Owen Quarles emarked that besides being violators those ellows have to be the poorest fishermen he iad ever seen; it took them 45 minutes to ook a fish in the ponds.

Paul R. Sowers
Waterways Patrolman
Warren County

N THE WINNER'S CIRCLE —

Robert Moyer, of Lehighton, Pennsylva-ia, received a large trophy and a check for 1,050.00 for winning the 1978 Mr. Bass hampionship held at Raystown Lake last October. The annual tournament attracted 61 contestants for the two-day event.

James T. Valentine
Waterways Patrolman
Huntingdon County

Waterways Patrolman James Valentine congratulates winner R. Moyer.



Ashore & Afloat

by Gene Winters

You may not realize it, but while your boat is sleeping the winter away it may be developing a major case of "bad breath." Especially if you've got it wrapped up as tightly as a butterfly in a cocoon.

Most boats — at least those stored outdoors — are sheltered under some type of protective wrap. In itself, this isn't a bad idea. But, depending on *how* you cover it, the care may be more detrimental than beneficial. An airtight cover may not allow rain, snow or ice inside the boat but that doesn't mean there won't be any *moisture* present. The fact is, the more airtight the wrap is, the greater the amount of moisture likely to develop. It all has to do with humidity and condensation.

Few who drive cars have not been warned about what condensation can do inside a car's gas tank. How many of us dump dozens of cans of dry gas into the car's tank during the winter months? In spite of the deteriorating quality of gasoline pushed on the motoring public these days, not all the water that hits your carburetor developed in the gas company's pipeline or your service station's storage tank. Much, percentage-wise, can develop within your auto's fuel tank itself. Newer vehicles, now airtight, including the gas cap (emission control) are contributing significantly to this problem.

If you've ever had a terrarium, you've seen it "sweat," especially on humid days. Gardeners who start plants indoors usually cover the seed, often with plastic, expressly to generate some moisture. But a similar condition inside your boat, under its airtight cover, is not a condition to be encouraged.

If you've done any reading at all on boat winterizing, I'm sure you've noticed practically every article includes a list of items to be carried home or taken indoors for winter storage. While many of these recommendations are made because of expected subfreezing temperatures, numerous items on the list are removed for another reason, moisture accumulation. Take boat curtains, for example. Few would be damaged in any way by freezing. But put them in a humid enclosure and add a wide temperature swing (freezing, thawing, freezing, etc.) and watch them deteriorate.

Vinyl materials are especially prone to attack under such conditions. Mildew, and in the most advanced stages, rot, are the price you will pay. Even indoor storage at home requires a little thought and consideration. One year I stored the vinyl boats cushions in the dark, dry basement. When I went for them the following spring, they had such a bad case of mildew they looked like they had contacted leprosy or chicken pox. Prior to this, I had never realized how damp and humid the "dry" basement could get.

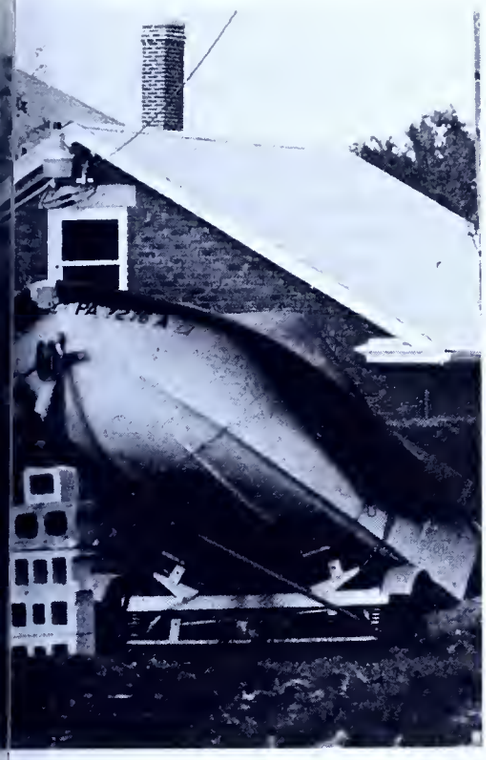
Now, can you begin to visualize what is probably happening under that airtight cover you spun so carefully around your boat? If you've covered it in similar fashion over previous winters, chances are you're more than familiar with the foul, musty odor that will greet you next spring. If you've never experienced it, consider yourself one of the very lucky, fortunate few. But realize once your boat does develop a good, strong case of bad breath, it's likely to stick around for a long time, in spite of repeated scrubbings and liberal doses of disinfectant. The only thing that will really clear it up is some good summer sun, fresh breezes . . . and time.

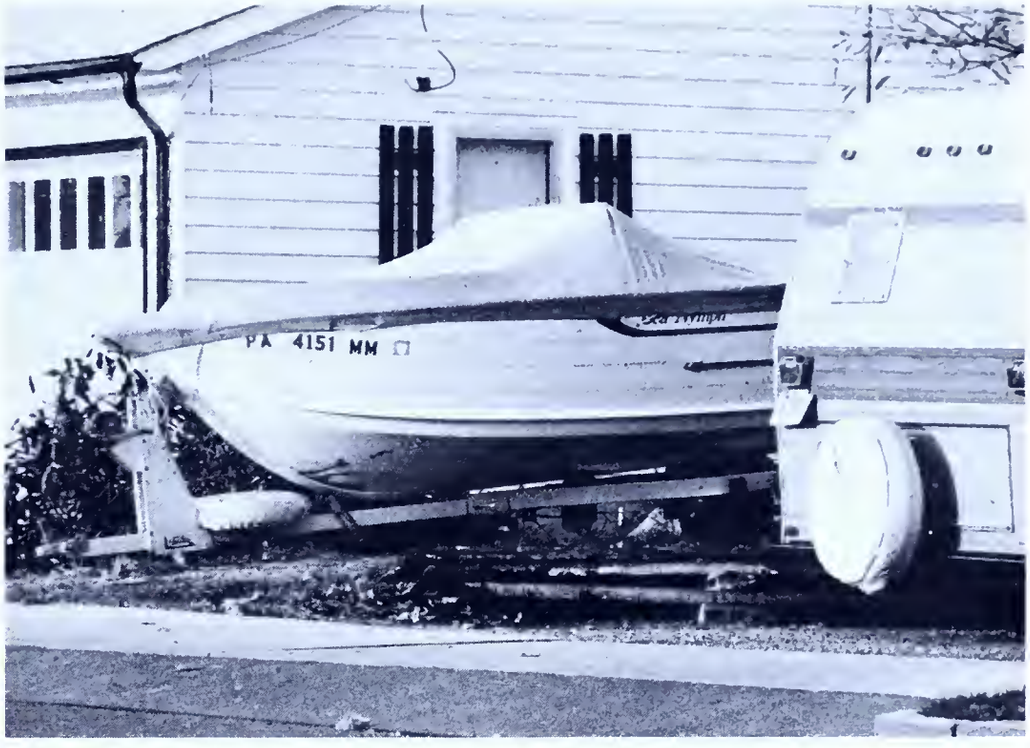
Boats constructed of wood seem prone to develop the worst cases of halitosis but aluminum and fiber glass are far from immune. In any boat, there are always plenty of deep, dark corners for moisture to accumulate and odor to form. Any material with pores is subject to moisture accumulation and bad breath which actually starts "right under the surface." Usually, by the time you see it you'll also smell it.

Years ago, canvas was canvas . . . today, modern technology and its wonderful advances (?) have taken over. Advances and improvements are fine but it doesn't mean refinements should not be viewed with at least some "prove-it-to-me" attitude along with all the praise. Canvas was originally made of firm, closely woven cloth, usually linen or cotton and, occasionally, hemp. Today, the canvas world is filled with synthetics and it's often hard to even find out what material has been used. In some cases, basic canvas (no matter what its composition) is covered with a thin layer of vinyl. Great for keeping out moisture but also great for making it accumulate underneath it. It simply chokes off your boat's innards — this "canvas" can't breathe. Slowly, silently, unrelentlessly, condensation and humidity are at work. Much material today is treated with a *waterproofing* agent. Personally, I prefer treatment by a *water-repellent*. If you think a minute, you'll understand there's a difference between the two and it's important. *Water-repellent* means *resistant* to water — it won't drink it up like a sponge — but not *waterproof,* which means the material can breathe. That means air can get through it, at least in sufficient amount to reduce if not eliminate any condensation. In this case, you now have the better half of condensation: evaporation.

If your boat is outdoors and subject to snowfall of any significant amount, it's likely you'll make up a frame or support underneath the canvas to handle the anticipated extra weight. The framing allows some flexibility in "building in" an opening or two, providing a means for fresh, drying air to filter through the boat. A good approach is to provide at least fore-and-aft openings to allow an air flow. In a nutshell, you should improvise some means of cross-ventilation. On a very small boat, this may be as simple as placing a few small two-by-four blocks at strategic locations. When the cover is drawn tight, the blocks will provide small but important air pockets so vital to your boat's good health.

Recently, I had an interesting conversation with an old salt. He stood silently at first, watching me remove the summer flybridge and stern covers. In continuing silence he watched me wrap the boat in an unbelievingly heavy (by weight) winter storage canvas. Finally, apparently unable to bear it anymore, he walked over to me. In spite of the cross-ventilation framing I had provided, he still wasn't







Boats in both top photos seem to have been given the best protection possible—good tight-fitting covers. However, "too tight" is bad. Although not apparent in the photo, small, unseen air openings have been provided at several locations around the cover of the boat in the photo above. A carport can be an ideal place to store a boat. It provides protection from heavy rain and snow, insures adequate ventilation . . . but it's not without its tradeoffs. Like where do you park the family limo?

satisfied. He soon advised me, were it his boat, he would take his chances on exposure to rain and snow than cover it in the manner I just had done. (My pride in workmanship was immediately crushed, I'm sure you realize.)

What he tried to tell me was to use the summer docking covers for winter storage, also. While they offered at least minimal coverage, he reasoned, they also were much less restrictive, allowing freer entry and egress of life-giving air. In addition, he reassured me, even if the docking covers wore faster from year-round use, they could be replaced at only a fraction of the price of my made-to-order winter canvas, which, I had to admit, was not going to make it through more than three winters. (Which makes me wonder if I really have a *canvas* canvas?)

As if to wrap up his argumentive position, he advised me that boat manufacturers fully intended and realized their products would be exposed to the elements of weather when they selected the materials, right down to the helmseat, to be incorporated in their craft. Weather? Probably. Snow and ice? I doubt it. But then again . . . .

I left my boat that day, hoping I had done right by her. I even felt, at least until the old man came by, that I had done an even better job of both protecting her and caring for her than in previous years. Yet, all winter long, there has been that gnawing uncertainty the stranger had created. While I can't prove my way is right, I can't prove his method isn't. Only time will tell: next spring, when I take off the winter cover and check my boat's "breath."

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Even when stocked in streams of Pennsylvania, rainbow trout are notorious travelers. Their instinct for migration leads them to travel from large streams into tributaries and even travel for many miles in a creek or river of good size.

In a small stream, the less wading you do, the better. Cast from the shore to avoid disturbing the water and, in any event, do the least possible wading. On most small streams, very short casts are required to reach the "hot" spots and not much of the line will touch the water.



Panfish are slow swimmers, easily frightened and very deliberate in their feeding. So, make delicate casts, avoid disturbing motions of the lure, and allow the fish plenty of time to inspect your offering. Often a panfish will strike a lure that has been lying absolutely motionless on the water surface.

Streamers are good lures for pickerel but the angler will do well to use some patterns other than those used in trout fishing. The more bright and gaudy the streamer is, the better it attracts pickerel. Red, orange and yellow and combinations of those colors are particularly effective.

The very spots where the hook is likely to become snagged the easiest are the best hiding places for fish. Here the worm fisherman will test his skill and patience, around roots and brush and other obstructions in water into which the bait must go if the big fellows are to be tempted. Weedless hooks help.

Dry flies and other surface lures are not so good in perch fishing. Fish of this species feed on the surface occasionally, but most of their food is taken underwater.

Slow down the retrieve in fishing water that is off-color. The fish will have time to be attracted first by the sound of the lure, then by its shape and size. Too fast a retrieve may take the lure out of the range of the fish before it has time really to move in on it.

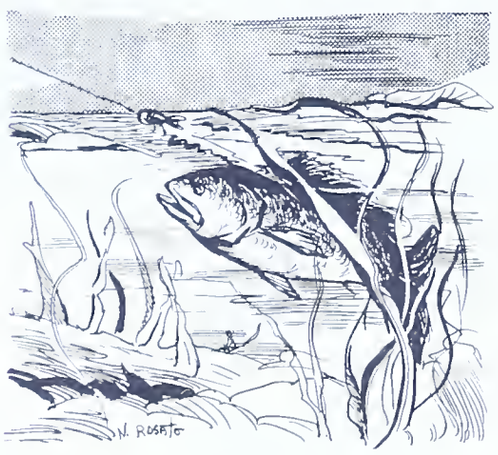
It pays to read the fishing instructions that accompany a new lure, but don't become a slave to those directions. Try some methods of your own . . . they also may take fish.

If you fish a lot with night crawlers, use a whippy rod and a lob cast to keep the bait from being jerked off the hook.

Black lures are not as popular as those of brighter colors, yet under certain conditions they are the most effective of all. They are more easily seen by the fish, for example, when days are dark and cloudy or even at night. The fish probably does not see them as sharply defined shapes, but their dark silhouettes are visible.

His reel can help a fly rod angler control a very active hooked fish. If the rod is held high, the friction of the moving parts of the reel, and of the line passing through the rod guides, will exert considerable tiring pressure on the fish.

Black or red fur ants, in sizes 14 and 16, are good bluegill lures. Let the ant float quietly in the water. Bluegills will see it.



Small fish in the water; a lure on the surface. Which will the bass take? Usually the surface lure, for it cannot escape into the weeds like a small fish can. A bass prefers to attack a quiet or slowly moving lure rather than to pursue a natural bait making a desperate, fast attempt to escape.

A spot where a tree has fallen offshore into a stream pool or a lake or pond is a fine area to fish. Make the first casts into the shallows near the shore, then gradually cover the water out into the deeper water around the tree top. Fish holding in shallows are easily frightened, but lures cast close to the shore will not disturb fish in deeper water.



In fishing with a bobber, move a baited hook now and then. A worm will increase its wriggle, and a minnow will show more signs of life.

Fishing only deeper holes or pools is only half the game. Trout and other fish on occasion move into shallow stretches between pools, especially if there are pockets in the riffles. Water only eight or ten inches deep, in such a situation, can hold a good trout or bass.

Caddis nymph imitations, with bodies of dubbed fur, are excellent in tan, dark gray and olive.

Small flies, either wet or dry, are the preference of most trout fishermen. But when they fail to produce, try large wet flies, with two or three on a leader. Give them plenty of action in the water to make them represent nymphs or small minnows.

The Quill Gordon, either as a dry fly, wet fly or nymph, is the best imitation of the mayflies very early in the season in the streams of Pennsylvania.

Attach a baited hook on a short leader to a small floating plug that can be cast to distant pools in bait fishing. The little plug will not only carry the baited hook to the fish, but it also will serve as a bobber and keep the bait off the bottom.

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MARCH—1979

PENNSYLVANIA Angler

the Keystone State's Official FISHING · BOATING Magazine...

30¢ Single Copy





All in the Name of "Sport"!

In early February, Harrisburg's Sunday paper heralded the opening of the annual sport show held in the Capital City with a front page picture showing *"Youngsters and adults who visited opening day activities Saturday at the Eastern Sports and Outdoor Show at the Farm Show Building trying their hand at the Fish Tank while ardent anglers wait their turn."*

There before you is a white plastic tank with crystal clear water populated by commercially hatched and reared trout. The tank is surrounded — by youngsters, mostly, but a few adults, as well, all holding assorted fishing tackle and all apparently under the impression that they are engaging in a sport called "fishing."

We recognize that the proprietor of this enterprise has paid his proper fee to the promoters of the "sports" show, and all of those participating in this "sport" obviously pay more for the opportunity to catch, or *snag*, the "wiley" trout than it cost to put the trout in the tank. But, excusing the profit-making motivation behind this activity, for the moment, keep fixed in your mind just what kind of "sport" it is in which these people are participating.

Last year the Committee on Humane Legislation joined the Friends of Animals in a suit against the U.S. Fish and Wildlife Service, which resulted in a consent order whereby all wildlife agencies across the country that use Pittman/Robertson money must submit environmental assessments for every project that involves the use of that money. In implementing this order, the Fish and Wildlife Service also included the projects using Dingell/Johnson monies, which are those monies returned to the states, through a formula, for fish restoration.

The "antis" are certainly going after hunting in a much stronger way than they are attacking the sport of fishing — at present. But, somewhere down the line, we believe that they will catch up with the anglers and begin calling a number of their practices unsportsmanlike. Granted that it is more difficult to become emotional about the cold-blooded creatures on this earth, no one would seriously think of setting up a money-making enterprise at a sports show where customers could take shots at bunny rabbits or Bambies.

Examine the odds: there is no cover for these animals swimming about in that crystal clear water; no depths to which they might escape. They do have a game instinct, and, whether they are hungry or not, or just get sick and tired of seeing hooks manipulated through the water about every two feet, they eventually attack. And if they don't respond with the swiftness necessary to make a "catch" as the seconds of this timed event tick away — and a "catch" must be made, or it's not "fun" -- this arrangement encourages snagging and foul-hooking, a practice prohibited by law in our open waters because it is so unsportsmanlike. And, achieving success here via foul-hooking, is it not possible this method will be given a try in our public waters?

We hope that well-meaning parents who want to bring up their children to properly learn how to fish will take a little more time than it takes to stand in line at the sports show, and spend some time with their youngsters on our streams and lakes where the natural setting and the sport itself is much more amenable to developing a much more rewarding lifelong recreational pursuit.

Ralph W. Abele
Executive Director

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

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FRONT COVER

A palomino trout executes a command performance for Waterways Patrolman Allen Stiffler and his group of volunteer float stockers. This method of stocking insures uniform distribution throughout the stream.

BACK COVER

Units of the "Great White Fleet" are a familiar sight each spring along the Commonwealth's waterways. Photos by Russell Gettig.

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James F. Yoder, Editor

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HOW'S IT DONE?

Would you kindly explain how to set bait and the proper cleaning of turtles? Thank you.

GLENN R. GORDON
6 W. Sheridan Avenue
New Castle, Pa. 16105

In past issues of the *Angler* we have published a "How to Clean & Cook" turtle piece here and there, but I don't recall anything on bait setting or "jug fishing," as it's sometimes called. Perhaps one of our readers can offer something on setting lines for turtles. In the very near future we will be publishing a feature article on the cleaning and cooking of snapping turtles — watch for it. Ed.

"THANKS" —

I would appreciate if you would be so kind as to put this note in the *Pennsylvania Angler*, of which I am a subscriber.

I would like to thank the person or persons who found my eyeglasses and turned them in to the Pennsylvania Fish Commission at Walnut Creek.

I would also like to thank the persons at the Fish Commission for keeping them safe for me. No Coho, but I got my glasses back. Thank you.

JOE UDOVICH
New Middletown, Ohio

"FISHING FREAK," HE SAYS —

Enclosed you will find a check for $7.50 to renew my *Pennsylvania Angler* for another three years. I think that the *Pensylvania Angler* is the most informative magazine that I've ever read. I particularly like the *Angler's Notebook*. The information that I get from just one magazine is worth the price of a three-year subscription.

I am what you might call a "fishing freak." I want to go fishing anytime, anyplace and with anyone, as long as they want to go fishing and will take me. I am handicapped and I cannot go alone. As long as I can get to the water, I can do my own fishing. Getting there, is my problem.

A childhood dream of mine is to go to Pymatuning Reservoir and catch a large northern pike or musky (the bigger they are, the better) and have it mounted.

Would you please print more stories about them. To me, catching small fish is boring. Thank you.

JAMES N. SULLENBERGER
Lakewood, Ohio 44107



WHOPPER!

Here's proof there are some nice fish in Lake Nockamixon. Fourteen-year-old Kevin O'Toole of Dublin, Pennsylvania caught this 4-pound, 19½-inch smallmouth on a C P Swing.

C. HOLLIDAY
Line Lexington

MOSHANNON BOATERS: HEED THE WARNING!

The Penn State Outing Club recently installed a warning sign above a particular danger point on Moshannon Creek, Section III. This point is approximately 3/4 mile below the Route 53 bridge crossing the stream. The particular danger consists of an undercut rock that is capable of sucking under a boat and holding it. The Outing Club took this action to warn private boaters after losing a boat there (which was recovered in heavily battered condition three months later, some 10 miles below on the West Branch). There have been many instances of private boaters receiving a rude shock at the danger point now marked with a sign.

Moshannon Creek is extensively used, almost as much as the West Branch of the Susquehanna; but, the difference is that even inexperienced people will seldom be hurt on the West Branch, whereas Moshannon Creek can be dangerous for beginners. The stream is divided by bridges into three sections: Winburne to Peale, Section I; Peale to Route 53, Section II; Route 53 to West Branch, Section III. Section I is 10 miles long, the others 7 or 8. Section I is essentially flat for the firs three miles to Six Mile Run, then change sharply at a bend just below Six Mile Ru and is Class I–II from there on. Section I also starts nearly flat and becomes Clas II, while Section III is considered Class II moving toward Class III in high water (The Class designations are according t American Canoe Association skill-ratin methods.)

It is wise for boaters of relatively untrie skills to practice on the West Branch first then on Section I of Moshannon Creel before trying the other sections. It is als important that there be several other boat in the party; these should be outfitted witl painters, flotation and boat-rescue ropes and there should be somebody present witl some experience. It is important that boat ers on Moshannon Creek wear Coas Guard approved PFD's. The Penn Stat Outing Club has safely trained boaters o Moshannon Creek for years using th procedures outlined above. Unfortunatel there are many casual boaters seen o Moshannon Creek who obviously do no use these procedures.

All sections of Moshannon Creek ar best run at normal water level. Hopefully common sense would keep people off th stream in high-water conditions. Section II and III are technically more difficult a low water than at normal. The marke danger point on Section III is probabl most dangerous at medium-low level.

In addition to the signed danger point o Section III, many a boat has been broke on the rocks in the last 1½ miles above th Route 53 bridge.

I would appreciate your making thi information available to your readers.

RALPH M. SEELE
Port Matilda

T'ORD UNDERSTANDING

I would like to congratulate Del Gra and the *Angler* for the fine article, "*Message to 'Quality Anglers',*" in th November issue. Mr. Graff asks fo support and acceptance of new trou programs. I would like to start by askin permission to publish his article in ou chapter newsletter so that our membe might better understand some of the prob lems facing the professional trout mar ager.

VINCE GIGLIOTTI, Presider
Allegheny Mt. Chapter
Trout Unlimited

Staff-written articles may be quoted o reprinted without receiving prior writte permission. Such articles can be distin guished from free-lance writings by th inclusion of the author's title and his PF affiliation. Ed.

"HUP, TWO, THREE FOUR . . . "

We regard the enclosed photos as unusual but do not know whether others will also so regard them. Should they be congenial to your format, feel free to use them. The turtles were photographed in a pond (algae covered) in Berks County, near Lake Ontelaunee.

CHARLES M. WATKINS
Fleetwood



"ON THE BLOCK"

I have been an *Angler* subscriber for over twenty years and especially enjoy all the articles on fly fishing and fly tying for trout, also the reports on our trout stream surveys.

I have almost a complete collection of *Angler* magazines in excellent condition dating from the May 1958 issue on thru to the 1978 December issue. There is one missing issue which is the March 1960 issue.

I would like to sell this collection at a reasonable price so I wondered if you would print this letter in the Leaky Boots monthly mail column in a future issue of the *Angler* as there may be some *Angler* readers interested in this collection. Thank you.

JACOB G. PAULES, JR.
29 Woodland Drive
Jacobus, Pa. 17407
717-428-1003

Anyone interested in acquiring Mr. Paules' collection of old *Anglers* is advised to contact him direct. Ed.

ATE THE EVIDENCE !

I would like to tell about my own stumbled-upon method of taking crayfish.

One day last summer I arose early to do some angling for bass in Laurel Hill Lake. After filling out my limit I started the hike back to my campsite. The hike brought me along a clear mountain stream (Jones Mill Run). In one of the pools I started to fillet my catch. Crayfish from downstream marched up to my discarded bass carcasses in the middle of the pool. Seeing this, I started grabbing them. After a half hour I had about a hundred of these crayfish ranging in size from an inch to half the size of my hand. That evening the larger crayfish along with the bass made a dandy meal. The next day with smaller crayfish I enjoyed some fine fishing for catfish.

DAVID RITZ
Greensburg

On the age-old assumption that fishermen only tell the truth half of the time, would it be safe to assume that you had only "*about* 50"? If not, you were *about 50 over the limit!* Watch It! Ed.

WHERE? HOW?

I've been a subscriber of the Pennsylvania Angler for a couple of years. I'm originally from New York state and have fished the Finger Lakes all my life and still do.

I was very impressed with the December article on Raystown Lake. I fished this lake for three days this summer with little success. No fault of the lake. I'm not a lake hopper. I realize a lake the size of Raystown takes a bit of research.

After reading your article I'm convinced, at the time of year I was down I should have applied the deep trolling methods I use with great success in the Finger Lakes of New York. With light tackle and down riggers, and a graph recorder.

I'll be back next spring. I'm very impressed with the attitude of the Pennsylvania Fish Commission. You do your best to encourage the sport, and help the boaters and fishermen.

Pennsylvania wasn't blessed with the many natural lakes of New York. I'm sure, though, with the efforts they put out, if they had these lakes we would have some of the finest fishing in the world.

We got a winner here at Raystown and Kinzua Dam. I also just read your article on the fishing school, but it didn't say where or how. It's the first I heard of it.

ROBERT REEP
Mansfield

Contact the Waterways Patrolman assigned to your county. His name, address and telephone number appears in the back of the summary you receive with your fishing license. He can advise you when and where such events are held within your area. Ed.

IT HURTS — "LITTER-LY"

The enclosed photo of a brown trout illustrates one of the lesser-known harmful effects of littering. The fish, caught by Dick Reynolds, of McVeytown, in Mifflin County, found itself stuck in the center of a ring from the lid of a salmon egg jar.

The trout was soon to die as the ring had broken through the skin and was causing a deep wound. I thought you might use the photo or slide in your educational endeavors.

RON FREED
Carlisle



MEALS from the CREEL

by Arthur J. Michaels

Don't Wait to "Curry Up"

Suppose your son were a Nineteenth Century sailor and he presented you with a vial of curry powder as a gift. "Nothing special," he'd say, just something he came by on his return voyage from India. Would you consider your son's unusual offering to be a marvelous gift of great value, or would you treat the whole thing in a casual, matter-of-fact way?

Surely you would have jumped for joy. Indian curry powder added so much to the art of spicing food its mysterious ingredients were considered to be a fascinating treasure for the kitchen a century ago.

Today, curry powder is still a fascinating treasure. It's a ground mixture of more than fifteen spices, and it's the oldest known spice blend. Depending on the combination and amounts of spices used, curries vary from hot and pungent to sweet and bland. You can buy mild or hot curry powder at the supermarket to use in your fish dish recipes, or you can make your own curry powder to suit your taste. You can demystify curry powder with this middle-of-the-road curry recipe. After you taste it, combine ingredients in different amounts to suit your family's taste.

CURRY POWDER

½ tablespoon cumin seed, whole
2 cloves, whole
2 inches stick cinnamon
½ teaspoon black peppercorns, whole
½ teaspoon cardamon seed (removed from pods)
1 bay leaf
1 tablespoon minced onion
1 tablespoon ground turmeric
½ teaspoon ground ginger
1 tablespoon ground coriander
1 ½ cups nonfat dry milk powder
pinch dried parsely

Combine cumin seed, cloves, cinnamon sticks, peppercorns, cardamon seed, and the bay leaf in a blender. Cover and blend. Pour this dry, blended mixture in a bowl, add the other ingredients, and stir well with a spoon. Store on a shelf in an airtight jar. For a hotter curry, add cayenne. For a milder curry, add chile powder and more cinnamon, cardamon, and clove. Makes about two cups.

Use your homemade or store-bought curry powder in the following fish recipes and sauces. That freezer full of fish you caught through the ice—perch, pickerel, and pike—is the perfect main event for your curry powder. Here's how to raise the curtain on your curried fish dishes for a nice round of applause.

Broil fillets with a little butter, and serve with vegetables, rice, and a few sauce boats of these curried mixtures:

CURRY SAUCE I

6 tablespoons butter
4 tablespoons flour
2 small carrots, scraped and shredded
2 tablespoons curry powder
2 large onions, chopped finely
2 teaspoons anchovy paste
2 tablespoons lemon juice
2 cups broth or consomme

Melt the butter in a medium saucepan, and stir in the flour and curry powder. Add all other ingredients. Stir and boil for five minutes. Strain through a sieve before serving. Makes about four cups.

CURRY SAUCE II

2 tablespoons butter
1 medium carrot, sliced
2 large onions, sliced
1 large stalk celery, finely chopped
3 blades mace
1 bay leaf
3 sprigs parsely
pinch thyme (dried or fresh)
2 tablespoons curry powder
2 tablespoons flour
4 cups broth or consomme

In a medium saucepan melt the butter, add celery, onions, and carrots, and heat until the onions are cooked. Stir in all other ingredients slowly, and cook until mixture boils. Remove from heat and let cool for a half-hour. Skim, then reheat, stirring slowly until sauce thickens. Strain through a sieve before serving. Makes about four cups.

CURRY SAUCE III

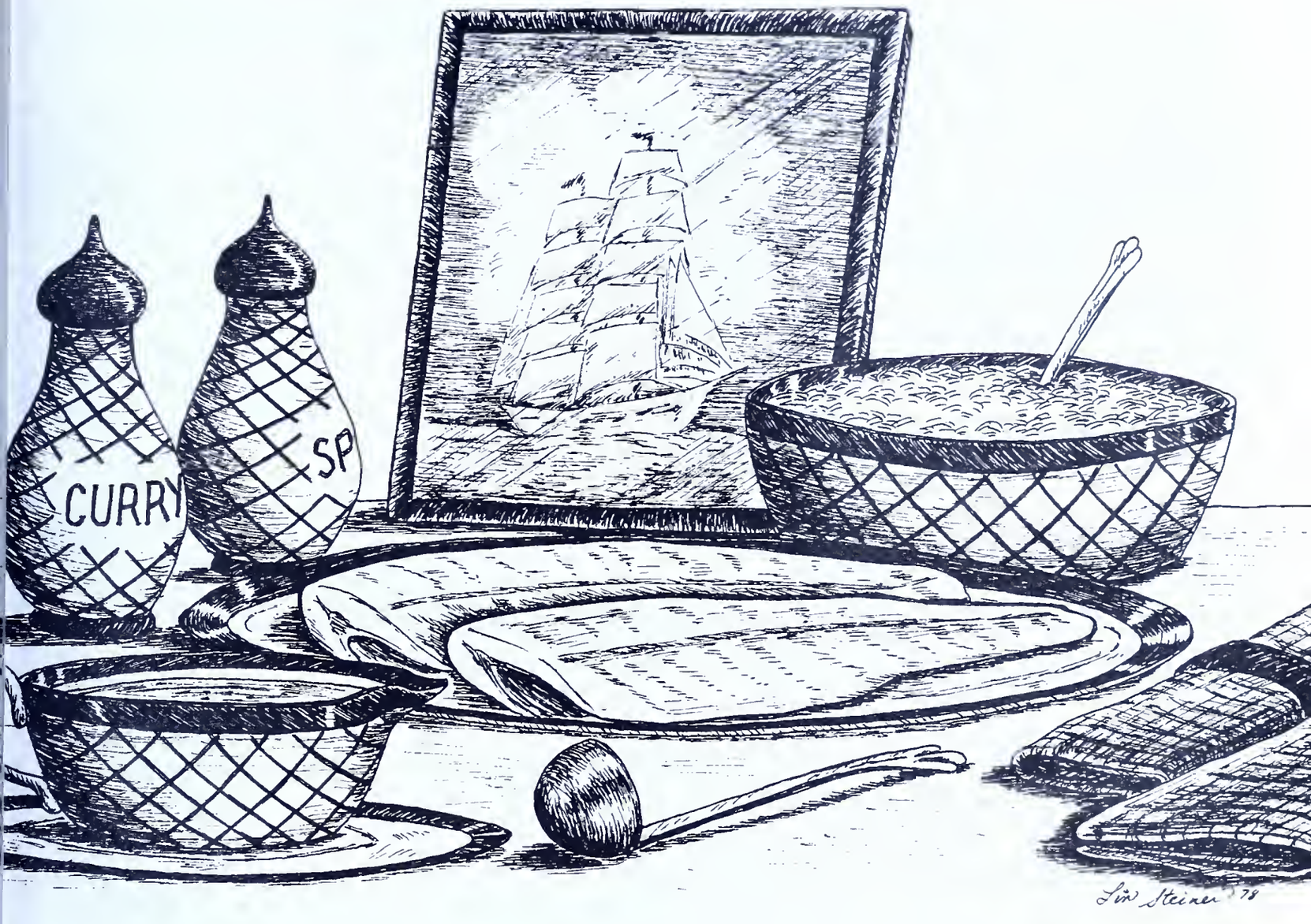
1 grated coconut
1 quart whole milk
1 medium minced onion
1 clove minced garlic
1 ½ tablespoons butter
1 ½ tablespoons curry powder
2 tablespoons flour
½ teaspoon brown sugar
dash salt

Scald the milk in a medium saucepan and add the grated coconut. Let stand for an hour, then strain through a sieve. Discard the coconut. Melt the butter in another saucepan and lightly sauté the garlic and onion. Stirring frequently, add the sugar, flour, curry powder, and milk. Add salt to taste as the sauce thickens. Serves four to six.

CURRY SAUCE IV

4 tablespoons butter
6 tablespoons flour
2 cups vegetable broth or bouillon
2 tablespoons minced onion
2 teaspoons curry powder
2 teaspoons tomato paste

Brown the onions in a little butter. In a small saucepan, melt the butter and add the flour. Stir frequently to prevent scorching over a low flame.



Add the other ingredients slowly and bring to boiling point. Cook an additional five minutes, stirring frequently. Pour hot over fish fillets from a gravy boat.

CURRY SOUP

8 tablespoons butter
¼ cup curry powder
2 tablespoons flour
2 can chicken broth
2 cups cooked, bite-sized fish pieces (any kind of fish)

Melt the butter in a medium saucepan, slowly add the curry powder and flour, and cook for 2 minutes. Add all other ingredients and cook until the soup bubbles. Ladle the soup hot into soup bowls. Serves four to six.

INDIAN CURRY (KEYSTONE STATE STYLE)

1 pound cooked perch, pike, or pickerel fillets
4 tablespoons oil
1 large onion, finely chopped
2 cloves crushed garlic
3 tablespoons vinegar
2 cups boiling water
1 and two-thirds cups shredded coconut
1 teaspoon salt
One-third cup curry powder

Add the coconut to the boiling water and press out the milk through a sieve. Combine the curry powder, salt, and vinegar in a bowl, and make into a paste. Fry the onions and garlic in oil in a heatproof casserole dish until the onion is transparent. Add the curry paste, stirring constantly for four minutes. Add the coconut milk and cook for ten minutes over low heat. Break up the fish fillets into bite-sized pieces and add them to the mixture. Cook until fish pieces are hot. Serve with rice and side dishes of vegetables. Serves four.

FISH CURRY (KEYSTONE KIND)

2 pounds fish fillet (your favorite kind)
boiled rice
2 tablespoons butter
1 chopped lime rind
2 tablespoons fresh grated coconut
2 tablespoons minced onion
2 cubes green ginger root
1 tablespoon curry powder
½ teaspoon cardamon seed
1 quart chicken stock

Cut the fillets into bite-sized pieces and set aside. Melt the butter in a large saucepan, add the lime rind and onion, and cook over low flame for five minutes. Slowly add the cardamon seed, ginger, curry powder, and coconut. Cook for fifteen minutes, and add the stock and fish pieces. Cover and simmer over low heat for an hour. Serve over hot rice. Serves six to eight.

Those Crazy People . . . Fishermen



Part II — Of Chirps, Barks, Bellows & Roars

With only a handful of exceptions, the zoologists and naturalists tell us, each and every one of the animals on this earth is capable of some sort of oral utterance, be it as refined and eloquent as the Gettysburg Address or as basic and spontaneous as the "GREE-*ORRK*!" of a bullfrog in late July. We need only to stand in our backyards on a warm Saturday afternoon to be aware of the fact that birds chirp, dogs bark, and lawn-mowing neighbors bellow and roar. It is no secret.

The very first thing you come across when taking up the study of some particular variety of beast is a picture of it. That is basic enough; and, since you have at least a hazy idea of what a fisherman looks like, we'll skip over it. The second thing you encounter is usually the beast's own particular method of expressing itself. Example: after you are shown a picture of a skunk you are told not to expect it to meow like a striped kitten, and so on. So, following this proven teaching method, we will initiate our study of the most deranged species of the genus Man — the fisherman.

Do not expect the fisherman to vocalize in the same manner as, say, the boater or the scuba diver. Although all three are often found around water, they speak as differently as the Briton, the Scotsman, and the Brooklyn baseball fan. When measuring the length of his day the boater speaks in terms of the number of gallons of gasoline in his fuel tanks, the scuba diver in terms of the number of minutes of air in his air tanks, and the fisherman in terms of the number of sandwiches in his cooler. Take the following vocalizations as examples:

"Better head home. There's only a gallon and a half left in my three-gallon gas tank." Without doubt, the boater.

"I'll start up now. I've got five minutes of air left." Again, not diffi-

ly E. W. Fisher



cult. It's the scuba diver.

Now: "*Blankety-blank!* This is my last sandwich. Guess I'm gonna have to call it quits." There — the one with the salami and mustard in his hand — that's the fisherman.

This brings us to another characteristic utterance of the species under study. "*Blankety-blank,*" often reproduced in print as "Aw, @#$%!," seems without doubt to be the natural call of the fisherman. It is repeated at frequent intervals throughout the expression of any given idea or thought. "Aw, @#$%! The blankety-blank fancy knot was supposed to withstand a blankety-blank eighty percent of the blankety-blank line test. Aw, @#$%!"

The fisherman uses the utterance in two distinctly different manners. In the first, by far the more frequently employed of the two methods, he jumps up and down like a kangaroo, tears out his already thinning hair and shouts the phrase at the top of his lungs (i.e. "Aw, @#$%!"). In the second, reserved for times when there are females or young present, he lowers his head, assumes a Clint Eastwood squint and calmly, quietly says "Blankety-blank" as if to himself and no one else. Then, with no more conversation on the matter, he calmly removes the three-ganged trolling plug from his backside.

The following is a highly abbreviated list of the most often uttered sounds common to the fisherman. Study them and get comfortable with them, and you'll be able to spot the critter with your eyes shut and your head behind a tree.

"*A*" — (Pronounced like "hay" with the "*h*" shot out of it) A salutation or greeting exchanged between two or more fishermen passing one another in the middle of the lake, usually accompanied by a tip of the hat and an extension of the arms to indicate size times a factor of ten.

"*Bedderkwit*" — Expression of intent to row back to shore, used no less than five time a day. "This is my last sandwich. *Bedderkwit.*"

"*Bug*" — Anything that floats, has hair or feathers, and contains a fishhook. "Hand me a *bug*, Joe."

"*Caist*" — Regional variation of the regular word Cast, used by fishermen who live within five miles of the wilderness. "*Caist* your *bug* over there, Joe."

"*Cooler*" — By far the most essential piece of fishing gear.

"*Dang*" — Often written @#$%! or Blankety-blank. Expression of anger or despair, or both. "*Dang.* I forgot my *cooler.*"

"*Enniluck*" — Inquiry into the worthiness of carrying thirty pounds of gear down over the side of the hill through the poison ivy. The most often uttered sound of all. "Morning. *Enniluck*?"

"*Giddonnair*" — (Pronounced with accent on first or second syllable, depending upon the urgency of the situation) Word of imploring directed at any of the variety "Panfish" when the latter is eating a worm but not getting hooked. "*Giddonnair*, you *blankety-blank*!"

"*Hawlanker*" — Command directed at intervals of no more than three minutes at the man in the bow of the boat.

"*Hungup*" — Securely fastened to a foreign body. "*Hawlanker*, I'm *hungup.*"

"*Itsabiggun* — Exclamation uttered every time a fishing rod is bent from the linear. "*Itsabiggun*! No . . . I'm *hungup.*"

"*Jistanuddercast*" — Statement used as a prelude to the end of the day, repeated as needed until another fish is caught. "We'll leave in a minute, honey. *Jistanuddercast.*" In backwoods country it is pronounced *Jistanuddercaist.*

"*Needle machine* — Porcupine. "Watch out for that *needle machine* when you go behind that tree, Joe."

"*Pickrel*" — All-encompassing noun used to identify anything that isn't a bass or a musky. Very uninformative. "I caught a *pickrel.*"

"*Rootch*" — (Rhymes with Butch) Move about in a boat, especially in a violent manner. "Hey! Don't *rootch* around so much or we'll go in the *blankety-blank* drink!"

"*See-eem*" — Inquiry used in darkness or murky water to signal the arrival of a fish. "Here he comes! *See-eem?*"

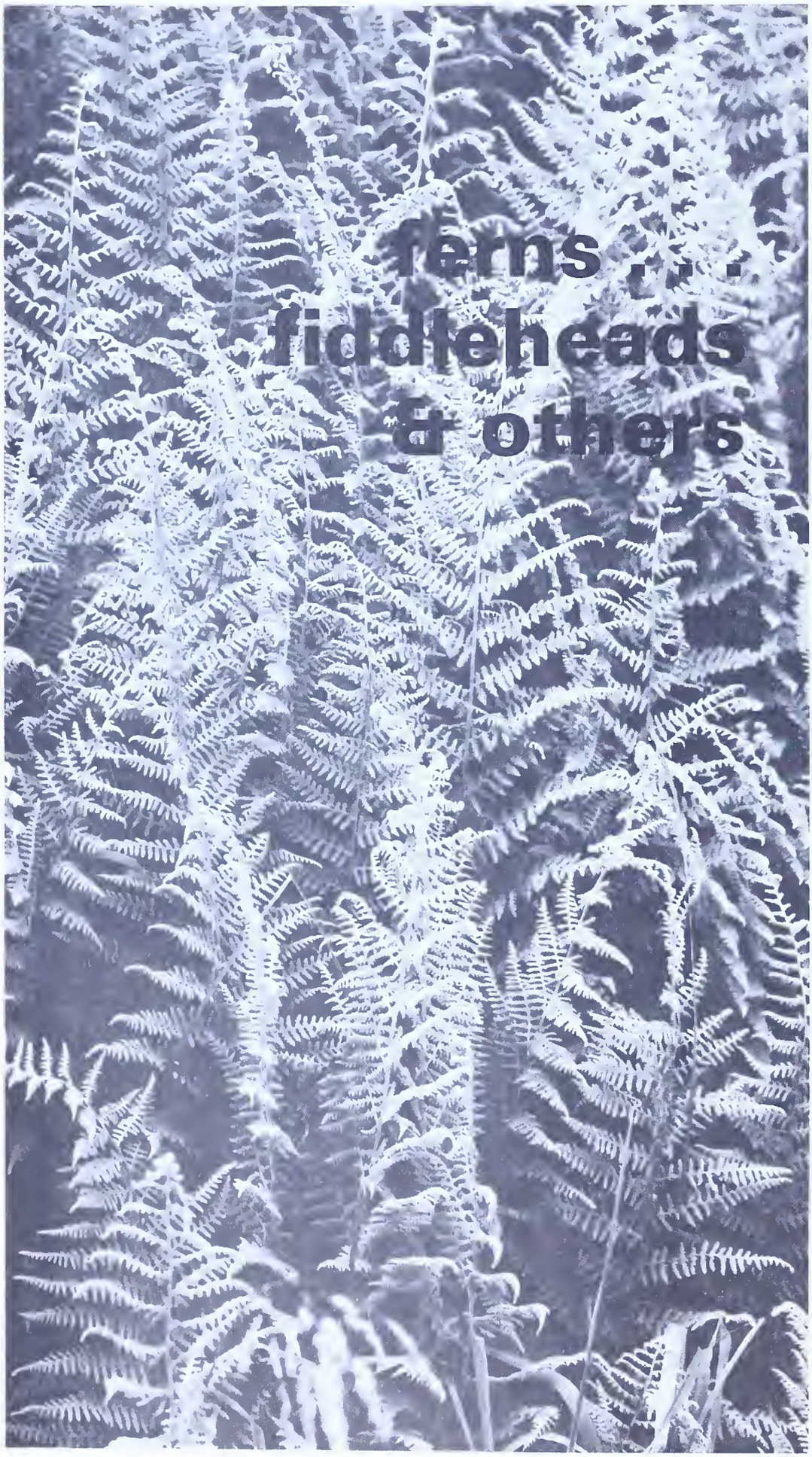
"*Sittinnonnabottom*" — The location of a baited hook in carp, catfish or sucker water. "Where's your worm?" "*Sittinnonnabottom.*"

"*Stuckinnaweeds*" — Similar to "*Hungup*" but used solely in reference to a three-ganged plug in pike or largemouth bass habitat. "Aw, @#$%! It's *stuckinnaweeds*!"

"*Waycross*" — Not to be confused with the city in Georgia, this work is used to describe one's destination to one's oarsman. "*Waycross* the lake, Joe, *waycross.*"

"*Wentnadrink*" — Mistakenly assumed the rock or log upon which one stepped to be solid and well anchored. "Have any spare clothes, Joe? I *wentnadrink.*"

The aforementioned chirps, barks, bellows and roars are but a very few of the one hundred or more sounds commonly uttered by the typical fisherman. I know I've said it before, but I can't say it too often — learn them. They make spotting a fisherman as easy as finding a Bostonian in a Georgia peach orchard.



ferns . . . fiddleheads & others

photographs & text by don shiner

The unfolding fronds of ferns, growing in clearings, along stream banks and wooded areas, are always a delight to observe during early spring. The fiddleheads, as they are referred to, are tightly coiled fronds that, over many weeks, gradually uncoil like run-down watch springs. The unfolding of these beautiful fern fronds coincides with the appearance of early hatches of mayflies, particularly *Ephemerella subvaris*.

There are numerous species of ferns found in Pennsylvania. Bracken, maiden hair, lady fern, woodfern, cinnamon, hay-scent, sensitive and Christmas fern are a few. The latter remains green all year, but most grow to maturity, reproduce, turn red, yellow or brown by autumn then wither and decay.

When fiddleheads appear above ground, they are covered with a woollylike fuzzy covering. Soon thereafter, but before fully uncurled, many varieties are gathered for use as spring greens. Bunched like asparagus, they are commonly sold in markets throughout New England, and prepared for the table by boiling in salted water until tender, then seasoning and



Ferns are one of the more useful streamside greens for stuffing creels to keep catches cool and fresh.

butter added. They are served hot.

Fiddleheads are considered by many to be one of the table delicacies of spring. Laurent Beaucage in *Outdoor Life* says this custom is traced to early American Indians who discovered this wild food delicacy by observing black bears feeding upon them. Today, however, modern science questions the wisdom of eating ferns since they are suspected of containing a carcinogenic chemical.

The mention of ferns in literature and folklore is seemingly endless. One old adage, attributed to Wm. Shakespeare, states that if you and I find seeds of ferns and place them in the heels of our boots, we will walk around invisible! Imagine what this would mean — you and I could, among other things, wade in close to feeding trout in low clear streams without being seen!

The truth is that in Shakespeare's day no one could find fern seeds. No one has to this day . . . ferns do not reproduce by seeds like flowering plants; instead, they grow from spores. These are tiny, dust-like grains, microscopic in size, each a single plant cell encased in a tough covering. Clusters of spores grow in tiny cases on the backside of various kinds of fronds. Winds scatter them. Those that fall on moist, shaded ground grow into tiny heart-shaped plants barely the size of most small #16 wet flies. They have no resemblance to the parent ferns at all.

As the tiny heart-shaped plants mature, they produce egg cells, one of which usually becomes fertilized. This develops into the fern we recognize. Botantists refer to this process as "alternation of generations." One generation reproduces sexually and bears no resemblance to the parent plant. The offspring of this generation reproduces asexually and grows into the plant with beautiful feathery fronds.

At least one resource book describes the appearance of ferns as bunches of large green feathers stuck into the ground. The fronds are of various shades of bright green and delicately cut with fine-toothed or lobed edges.

The Christmas fern is aptly named. It is evergreen, remaining green through the cold wintry months like laurel, trailing pine and conifers. The





In early spring, tightly coiled fern fiddleheads, above left, poke above ground. As weeks progress, the fiddleheads uncoil like lazy watch springs, above right. Stems grow thicker and stronger as they continue to uncurl, lower left. Below right, beautiful patterns of fronds grace our streams.

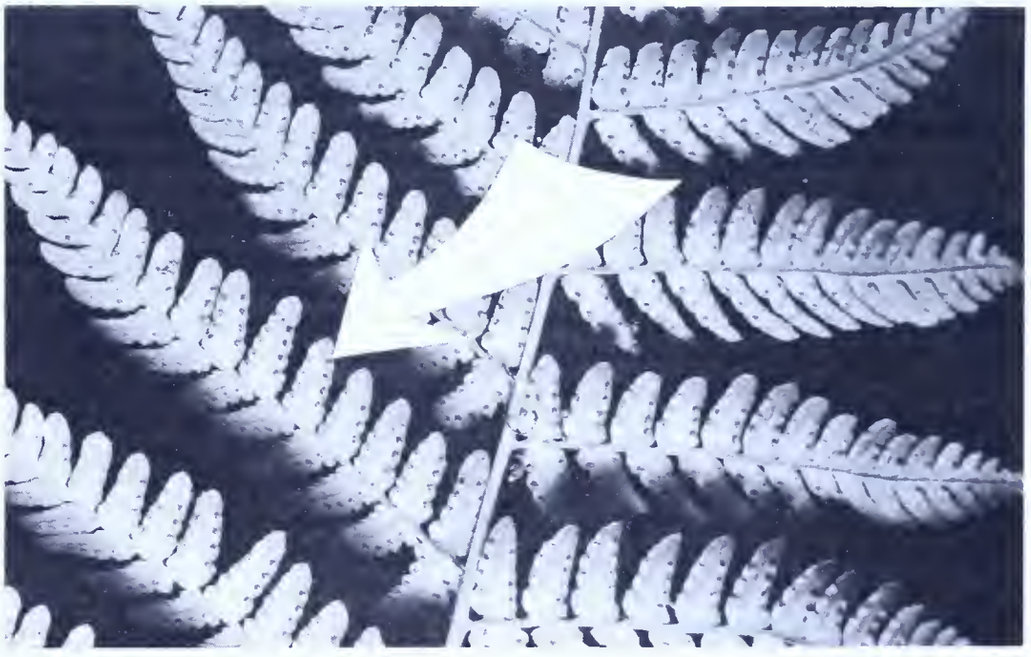






Tenacious of life, beautiful ferns grow in crevices of rocks, above, on rotted logs, nd on flooded streambanks, as well.

Photo, right: look for the tiny spore cases on the acksides of some species of fronds.



individual leaflets, fitted to the stem like so many piano keys, are shaped like Santa's boot, complete with toe and heel.

The delicate lacy plumes of ferns provide beautiful ground cover from early spring through autumn. Besides their aesthetic value, ferns are quite useful plants. You know, of course, that florists use them to make funeral sprays and wreaths. Other folks gather bagfuls of fronds. They dry them and use them for bedding in dog kennels and for some farm livestock. Natives of some Pacific islands use fine hair-like fibers pulled from tree ferns for stuffing pillows and mattresses. One old resource book tells of the rootstalk being used as a dressing for leather. Some ferns also have been used medicinally.

None of the sources that I consulted mentioned the major uses of ferns by fishermen. As most everyone knows, ferns are popular greens for lining creels to keep catches fresh. Indeed, it is a tradition with many to cut handfuls of fronds, wet them in water, and pack loosely in willow or canvas creels before beginning to fish. Later, the evaporation keeps the catch cool and flesh firm until it is filleted for the pan.

As spring progresses and you spend more time along streams, make it a point to search out clusters of unfolding fern fiddleheads. Observe their day-to-day and week-to-week progress as they unroll and develop into feathery fronds. Sometime during late summer, look on the backside of some species of ferns for spore cases. Examine damp soil nearby for the tiny heart-shaped plants — the first generation offspring from last year's fronds.

There are many personal rewards for those who make repeated observations of the growing ferns. You will also know the locations where fronds can be found when you need some for packing creels to keep catches cool and fresh.

Shown on these pages are a series of photos of ferns and fiddleheads unfolding step by step as spring fades into summer.


Nick A. Rosato

The Saga of Mill Run

by William C. Ackerman

The principal character in this story is a stream, an abused little stream which even then, fifteen or twenty years ago, was dying but we didn't know it, or sadly enough, probably wouldn't have done anything if we had. The timing was all wrong . . . ecology was only talked about in distant academic circles and wouldn't have made any more sense to us than our GNP or DNA or anything else that sounded even remotely intellectual.

Mill Run was dying. It bled of cans and garbage, of sewer sludge and oily crud, of broken glass and laundry waste . . . the flotsam and jetsam of a city. Not a big city! But a small one which chose that little delta, Mill Run's book mark in French Creek, to squat upon. And that was the stream's only real crime! The grudging hospitality of allowing a city to settle there at all.

First it was systematically buried beneath the streets and alleyways of the town. Then it was despised as a malicious flooder of basements and cursed as a civic embarrassment where its littered flanks occassionally lay bare. Until finally, one gray day, they came with bulldozer and shovel, mixer and mason, and built a rock and concrete sluice . . . Mill Run became as sterile as an obelisk and as functional as the sewer it was so despised as.

But once it was not so. And each spring a kind of madness and magic occurred which enabled the stream to stop being one of French Creek's poorer relatives and become a co-star in one of nature's more interesting productions . . . the annual spawning migration of the red fin.

"The meat . . . is found to be generally sweet and as white as unsoiled snow but takes the patience of an auditor to eat."

To others they were just suckers. To nearly all they were a pain and a year long source of irritation, but there was certainly no stranger or more uniquely matched pair than Mill Run and that fish.

It was a curious kind of periodic love affair that the red fin had for its stream. Maybe in some way the fish knew that Mill Run was as big a loser as it was, or at least as everyone seemed to feel that it was.

Ask nearly any fisherman and he'll tell you that the sucker is a "trash fish," that is if he tells you anything at all. The meat, for those brave enough to have discounted the horror stories and tried it for themselves, is found to be generally sweet and as white as unsoiled snow but takes the patience of an auditor to eat. Each bite seems to contain somewhere between three and three hundred thousand pin bones, most without any apparent anatomical reason for existence and all seemingly big enough to choke a rhinoceros. Some persons, more enterprising or desperate than others, tell that finely ground *(very finely ground)* sucker meat baked or fried into fish cakes is commendable to any palate and an excellent substitute when the "real thing" is making itself scarce (and we all know those spells).

Much of the loathing and blind dislike that fishermen in general hold for the lowly sucker is because of its flexible eating habits and propensity for getting caught when nearly anything else is being sought. Again, get a bunch of fishermen together, and if you can get them to stop trying to outlie one another long enough to answer, and if they don't mob you for bringing up the subject, they will relate stories about catching suckers in nearly every possible manner and in nearly every possible place. Small wonder, then, that the object so dear to all fishermen's hearts . . . that anticipated encounter which they never tire of . . . that initial impact of the strike and the resulting excited fight . . . is quickly replaced with the indignation of a betrayed lover when the thirty-inch walleye that they just hooked pops pouting to the surface and apologetically reveals itself to be a sucker!

And boy they do hit; on anything and everything: worms, minnows, spoons, plugs, grubs, spinners, absolutely anything. Nothing as consis-

tently as worms, probably; but, then, when fishing with worms anything might hit anyway so the indignation there should be considerably less.

When one stops to think about it, considering this avaricious burden that the sucker family suffers under, probably the only thing that has saved them from extinction was the development of the pin bone . . . so I am back to the beginning.

The real beauty of the red fin and its periodic infatuation with Mill Run was never truly appreciated by those of us occupied with catching them, probably because it was so obvious. For all the rest of the fishing season those fishermen who worked French Creek's banks and swirling green eddies did so with the same social biases that colored the rest of their lives.

Territoriality was rigidly sought and, depending on how gracious a mood the individual was in, "crowding in" could be regarded as anywhere from a few feet to nearly a half mile. Even the imaginary boundary that ran the center of the creek often was not enough to relieve icy stares from skipping across the water at some recently arrived trespasser.

Of course, the fishing community also had its own varied social levels. Artificial lure enthusiasts often looked down on natural bait users as somewhat base while the natural bait users looked back with disdain for those who had to seek out commercial means to imitate what was already there.

Bank fishermen felt themselves the true Twainian appreciators of what fishing was really all about, while the more bedouin-like waders saw them as soft and lacking the ambition to seek out their prey and experience the thrill of the chase.

The old seemed to distrust and have little patience for the young while the young didn't understand the infinite waiting of the old etc., etc. Year in and year out it was much the same. Except for this one time of the year when most biases and preconceptions were pretty much set aside and the results were often poignant, funny, and typical of what can happen when situations take over and force the issues.

Mill Run, at its mouth, was only about twenty feet across. The spooned-out hole that the red fin shinnied into extended perhaps fifteen feet out into the mother stream and no more than thirty feet inland and, for some reason, all of that didn't seem to be suitable to their fishy tastes, so the entire fishing area was no more than thirty feet long, on the town side, and about ten on the other. This lack of fishing room, coupled with the fact that the bank on the town side was nearly vertical in places and almost always as slick as the back of a bullhead, made any accessible spot a coveted commodity when the run started.

"It's much the same as the similarities between a dog show and a dog fight: the only thing the two have in common is dogs."

When the exodus began it generally lasted from two to five days and the array of characters and equipment on display often looked like an animated production of some fisherman's encyclopedia. An Orvis fly rod snuck away from the sanctity of its off-season cloister might find itself standing shoulder to shoulder with a casting outfit that was old when fishing was young and which required a sinker the size of a go-cart wheel to coax its weary gears out of retirement. Broom handles and bamboo which short days before had kept rolled rugs in shape slashed and competed with spinning reels and rods of all makes and sizes . . . some even matched!

This naturally led to some pretty interesting encounters but for those who might be trying to picture it in terms of the first day of trout season, it's much the same as the similarities between a dog show and a dog fight: the only thing the two have in common is dogs.

A lot more than fishing (or whatever it might have been called) was learned in those days. Command decisions were taught on a firing line basis. For example, when lines tangled both parties had to immediately size up the other to see who would untangle it or if it might be settled with a quick snip of a knife resulting in an unhappy, considerably smaller adversary screaming from the other side. Naturally, this was no light or easy task and things such as: whether the big guy beside him might be his brother had to be considered; or (if you were on the wrong side of the stream), whether he looked like the kind of vindictive, humorless little kid who might run up the bank and throw your bike off the bridge; or, if there was some doubt about size, how long it would take him to run up the stream and around to get to you (with all the idiots fishing there it would have been suicide to try to swim or wade across).

Diplomacy was another by-product of those adventures. If you made the wrong decision on any of the above points the ability to talk fast and make some kind of sense could salve a lot of pride. Or, if you were involved in a bird's nest as big as an eagle's home and on the other side of the sage brush was some kid just thrown out of reform school for being too rough, it never hurt to be able to small talk while you were figuring out how to cut your line away from his as fast as possible. Or, if the guy directly away was a little upset and in the process of charging across the top of the water because of the sinker which you just bounced off of his forehead for the third straight time, it was always nice to have something prepared to say for his arrival.

Wisdom and diplomacy sort of run hand-in-hand. Perhaps the most obvious example of separating them would be if two fisherpersons caught the fish from different ends. *Diplomacy* would be: convincing the other person that your end, the one with the mouth, was very likely the end that sought out and pursued the bait. *Wisdom*, however, might sit knowingly back and agree that the tail end could very well have had a great deal to do with having made the hit depending on who owned that hook.

In a more serious vein, however, much was learned at Mill Run which was often to benefit us for the rest of our lives. Friendships of the most unlikely origins were generated and grew healthy and strong as the little runts that they were. Even unspoken color barriers suffered irreparable rents and breaches which allowed all sides to peek through and, momentarily at least, gain some of the insight that common goals will allow.

As I said, however, even then Mill Run was dying. The litter and garbage that choked and fouled its passage through the town was slowly making its domination felt on a year-round

)asis. Civic demands and flood control)rojects were getting the bulk of the :opy and whatever measures might iave been taken to save the stream vere passed over for the financial, if iot esthetic, well-being of the commu-iity.

I've had an opportunity to travel quite a lot since those days of elbow-o-elbow angling and I have wistfully narveled at other towns which seemed o acknowledge the sovereignty of the streams around which they grew. Many towns have utilized the natural)eauty made available by these earliest of settlers, to the benefit of all. They have apparently accepted the)ossible consequences of a well-policed)pen stream gracing their community. Parks and promenades border clear, itter-free runs and brooks still, or)erhaps once again, teaming with vari-)us kinds of aquatic life.

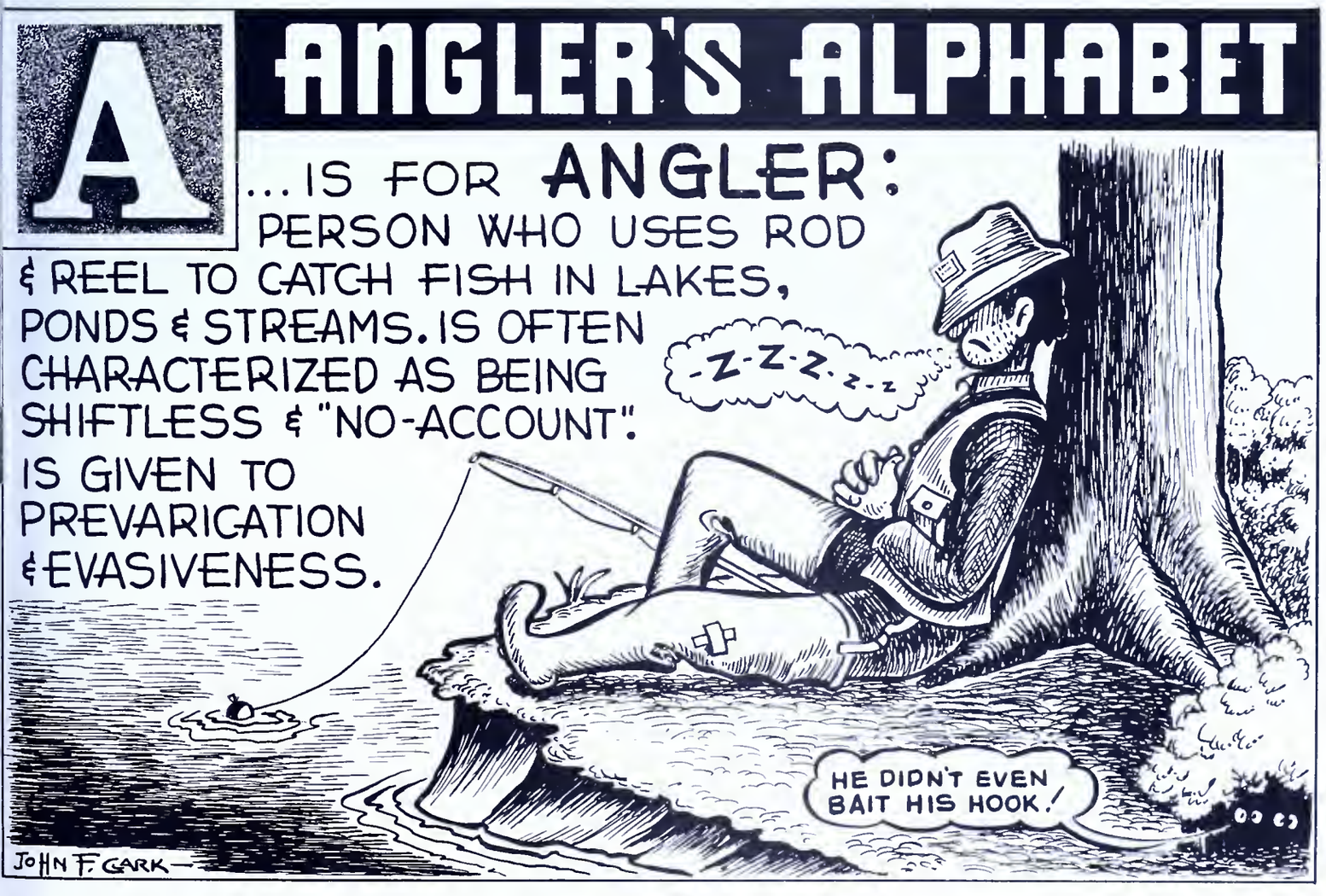
It's now far too late for Mill Run. Burial and encasement have narrowed ts off-season flow and therefore made t much more efficient at sweeping the town's detritus under the rug of French Creek; but young communities might do well to look around before jumping on that sort of modernesque bandwagon. Certainly those towns which have opted for open water run some risks and expenses and have to bank a great deal on civic pride to avoid allowing the creation of a growing eyesore; but at least they will have something to show for their efforts. Those which do not, have only an unbroken array of streets, sludge-engorged sewers and periodic downtown flooding . . . all the by-products of placing an impossible task on a, by volume, diminished stream which was never meant to be entombed.

It's still fun, if maybe a little bittersweet, to remember growing up along those banks. Time tends to be a pleasant narrator and I guess exaggeration is probably the biggest fan of recall; but, exaggeration aside, there was a simplicity and a naturalness to that stream which seemed to have an endless quality. Perhaps that is the greatest pity of all. . . .

Epilogue

"I guess my purpose in writing this story in the first place was kicked off by the reduction of Mill Run from a badly treated stream to just another cement sluice. I had hoped that if it were to appear anywhere the Angler would be the most appropriate magazine. The pollution and litter to which I initially referred has been markedly diminished but in doing so the aesthetics and naturalness of the stream have been virtually eliminated. It's been dredged and encased so that as a stream it really doesn't exist anymore and that's my story. Incidentally, Mill Run flows through and under the city of Meadville, Pennsylvania. It was fun to write, though maybe a little sad in ways, and I do hope it points, in some small way, to the fact that we really can't afford to take our resources for granted, regardless of how minor they might seem or how endless they might appear."

Send an Angler Gift Subscription to a friend—see page 22.





"You really have to love your fishing to do it this way," Rick said, swatting a mosquito off the back of his neck.

He was right and then some. On a scorching hot day in mid-June we had hiked two miles up a mountain valley to begin fishing, and then sampled the fishing for another three miles upstream. Now, sweating and leg-weary, we faced a five-mile trek back to Rick's Jeep. But, it was worth the effort because we were sampling the quality fishing that awaits those who will venture off the beaten path to one of the waters managed under the PFC Wilderness Trout Streams Program.

My fishing partner was Fishery Biologist Rick Hoopes who worked on the program at the time (Rick has since been reassigned as Warmwater Unit Leader in the Fish Commission's Fisheries Management Section). The program, which has been attracting the interest of other states as far away as Idaho, is presently coordinated through Richard Snyder's Coldwater Unit in the Fisheries Management Section.

To nonresidents the term "wilderness" might seem farfetched when applied to Pennsylvania, the nation's third most populated state and a leader in coal mining, iron and steel production, and heavy manufacturing. But as those of us who live here are proudly aware, three-fifths of Penn's Woods is covered with woodlands. In the northcentral counties, in particular, it is possible to walk for several miles through unbroken forests without crossing even a dirt road.

Within this northcentral heartland of the state's prime deer, black bear and wild turkey range are dozens of



Pennsylvania's Wilderness Trout

by Jim Hayes

photo by Don Shiner

pure, cold-flowing headwater and tributary streams which support populations of native brookies and streambred brown trout. The purpose of the wilderness streams program is to preserve this quality fishing environment for those who enjoy it, and to offer it to other anglers as an alternative to casting for hatchery-reared trout in the heavily stocked, intensively fished larger streams, ponds and lakes.

"Another important objective is to more efficiently manage the headwaters, and contribute to both better stream conditions and improved trout habitat on the downstream stretches," Rick explained.

The stream we were fishing, whose name I promised to forget, is rated among the more popular of the wilderness streams, although it is not the biggest, the most remote, or necessarily the best. Draining an isolated mountain valley, it has about eight miles of mainstream and five miles of fishable tributaries. It was removed from the trout stocking schedule when it was designated a wilderness stream in 1971.

"Our studies indicate that this stream is supporting about 100 pounds of trout per surface acre, or equivalent to 600 half-pound trout per mile," Rick said. "Despite the numbers of trout removed by anglers, that is probably close to its carrying capacity."

Based on the numbers of trout we were seeing, his estimate seemed conservative. In a long, deep-shaded pool impounded by a beaver dam we watched over a dozen brook and brown trout dimpling the surface after insects.

Best of all was the enjoyment of fishing in unspoiled mountain surroundings of towering trees, luxuriant fern, rock outcroppings, crystal clear springs, and valley wildflowers. Although civilization was only five miles away, the solitude and natural beauty might have been lifted intact from some remote area of Canada or Alaska.

"This is just like fishing in a hatchery," I told Rick as I landed and released a butter-bellied brown trout, one of many I'd raised on dry flies.

"That's exactly what it is, a natural trout hatchery," he replied. "The difference is that nature provides these trout while it costs an average of .50c each to raise them to catchable size in our state hatcheries."

He went on to point out, however, that the wilderness streams program is intended to supplement and enhance — through headwaters management — the Fish Commission's extensive trout rearing and stocking program, which is essential to maintain catchable trout fisheries on many miles of streams.

Hopefully, too, the program may divert some of the pressure off the larger mainstreams as more anglers discover the quality wild trout fishing and relatively uncrowded conditions on the headwater and tributary streams.

The Wilderness Trout Streams Program was launched in 1969 as part of a comprehensive, ongoing management plan to evaluate the quality of natural trout resources. Since then 125 streams in 27 counties have been surveyed. To date 85 of them, totalling about 300 miles, have been designated wilderness trout streams. About 75 percent are located in the northcentral counties, and most are on State Forest Lands or State Game Lands.

In order to meet wilderness streams criteria a stream must have natural reproduction and support a fishable population of streambred trout. Some are exclusively native brookie streams,

but most have mixed populations of brook and brown trout. A stream must be at least two miles long and open to public fishing, with no more than one point of road access every two miles.

"By limiting the points of road access we are trying to preserve remote areas where fishermen, hikers, and others can enjoy a secluded, unspoiled natural environment," Rick explained. "There are so few such areas left that it is worth any effort to protect them."

The streams are open to any type of fishing — bait, spinners, flies — and statewide legal size and creel limits prevail.

Before a stream is proposed for wilderness designation, an extensive biological survey is conducted to determine its characteristics. This is accomplished by examining two representative stretches at upstream and downstream locations. Fish populations are sampled by using backpack electroshockers which temporarily stun the fish so they can be examined and measured. Water quality is tested in both the field and at the research laboratory. Each stream is then rated for productivity and accessibility.

Most of the brook trout sampled are small. Only 10 percent of those checked exceed the six-inch legal size limit. However, the electroshockers also turn up occasional brookies in the 10- to 12-inch class, and streambred brownies from one-half to over three pounds.

An important aspect of the program has been to preserve native brook trout populations by avoiding the introduction of brown trout into their habitat. In fact, all stocking with hatchery trout is discontinued as soon as a stretch of stream is designated for the wilderness category.

With all stocking suspended, a logical question might be, "How does one account for these mixed populations of brook and brown trout? Where do the brownies come from?" I put that one to Rick.

"Many of these watersheds have been stocked regularly with brown trout since the early 1900's," he explained. "Over the years enough of them survived and located in conditions of optimum habitat to develop a strain of wild, streambred brown trout."

Among the outstanding streams included in the wilderness category are Lushbaugh Run, Bailey Run and the East Branch of Big Nelson Run, all tributaries of the well-known First Fork of Sinnemahoning Creek; and the Birch Run and Stony Lick tributaries of nearby East Fork, as well as the uppermost East Fork headwaters. Among the Kettle Creek tributaries, the Hammersley Fork is a favorite among hike-in anglers.

Wilderness tributaries of the West Branch of the Susquehanna River are Fish Dam Run, Boggs Hollow Run, Barney Run, Burns Run and Lick Run. The latter extends for over 12 miles into a scenic mountain valley.

In the Allegheny National Forest, Arnot Run and Wildcat Run, tributaries of Tionesta Creek, have been given the wilderness designation. Some others worth visiting are Wallace Run, a tributary of Bald Eagle Creek; the West, East and Middle Branches of Big Run; and Shanerburg Run and Kettle Creek, tributaries of Loyalsock Creek.

In southwestern Pennsylvania, Baldwin Creek, Powdermill Run and the South Branch of Mill Creek, all in Westmoreland County, and Quebec Run in Fayette County, have been so designated.

Eventually, the Fish Commission hopes to expand the list to about 150 streams. A limiting factor is that while the Fish Commission manages the fisheries, the watersheds and surrounding lands are controlled by other agencies and in some instances by private landowners.

"This means that the entire program depends on their cooperations, and we have been extremely fortunate in securing cooperative agreements with many of them," Rick added.

Under these pacts the Fish Commission agrees to support certain beneficial activities such as stream improvement and management, reforestation of denuded watersheds and the establishment of buffer zones along the streams to permit the selective removal of timber resources.

"This program is still in its developmental stages, and it's a small part of a much larger, ongoing, comprehensive management plan," Rick said. "Much of the work to date has been devoted to developing sampling techniques, a classification system, and a management philosophy.

"Ultimately, the Fish Commission hopes to identify other categories of streams with naturally reproducing trout populations, but not necessarily meeting wilderness streams criteria, and to develop fisheries management plans on a watershed-by-watershed basis."

All of which should be good news for anglers. More importantly, the program holds the promise that the outlook for future generations of wilderness seekers may, for the first time in years, be showing either a reversal or at least a stabilization of a deteriorating trend. Because if the Wilderness Trout Streams Program, and others like it, can do no more than maintain the status quo, there's yet a chance that future generations may cast for wild, streambred trout in natural, unspoiled, wilderness-like surroundings.

TIPS FOR WILDERNESS STREAM FISHERMEN

For those interested in exploring wilderness streams, several precautions are recommended. First, if you are hiking into unfamiliar terrain, use a topographic map, and don't go alone. Use the buddy system.

Remember, for every mile you hike in, it's a longer mile hiking out. Plan your day in advance and don't overexert. Stay well within your physical limitations.

Many of the wilderness streams are very small and brush-cluttered. Some of them require almost a hands-and knees approach in country were there's a possibility of encountering rattlesnakes, copperheads or both; so, play it safe.

Release undersized trout gently. If you find yourself deep-hooking sublegal trout, switch to a larger hook or, better yet, try fly fishing. If you should creel any trout, remember that these streams are not stocked, and any you kill cannot be replaced except through natural reproduction.

Above all else, don't litter! Discarded beer and pop cans, candy bar wrappers and empty cigarette packs desecrate the wilderness surroundings you came to enjoy. And, since some slobs won't heed this message, assume it's *your* responsiblity to pick up after *them*. It's one way, an ideal way, that you can personally contribute.



BASS Pledges Research Funding

by Wes Bower

The Pennsylvania BASS Association recently pledged $12,000, over a 4-year period, to assist the Pennsylvania Fish Commission in undertaking a bass research program. The study will take place on Kahle Lake, located in Clarion and Venango Counties, and will cost approximately $48,000. The remaining $36,000 will be provided through federal funding — thus, the Pennsylvania Fish Commission will not be financing any of the project.

While there are several reasons for the study proposal, the most important determination will be the validity of raising the legal bass size limit from 9 inches to 12 inches. Other factors which are hoped to be determined are the effects of angling use and the harvest of a largemouth bass population in an impoundment that receives intensive fishing pressure. The study will also evaluate the impact of competitive bass angling on the survival and recapture of bass caught and released during competitive angling events.

Kahle Lake is a relatively new Pennsylvania Fish Commission impoundment located in Salem Township, Clarion County, and Richland Township in Venango County. The lake is 251 acres in size.

Each year, the Pennsylvania BASS Association has agreed to hold a competitive outing on Kahle Lake. Bass over 9 inches which had been previously tagged during spring electrofishing operations will be captured, held, then released during the competitive angling events.

The study, which has been undertaken by Clarion State College, is under the supervision of faculty members J. Robert Moore, Project Director, and W.R. Kodrich, Biostatistician. Graduate students are also helping on the project.

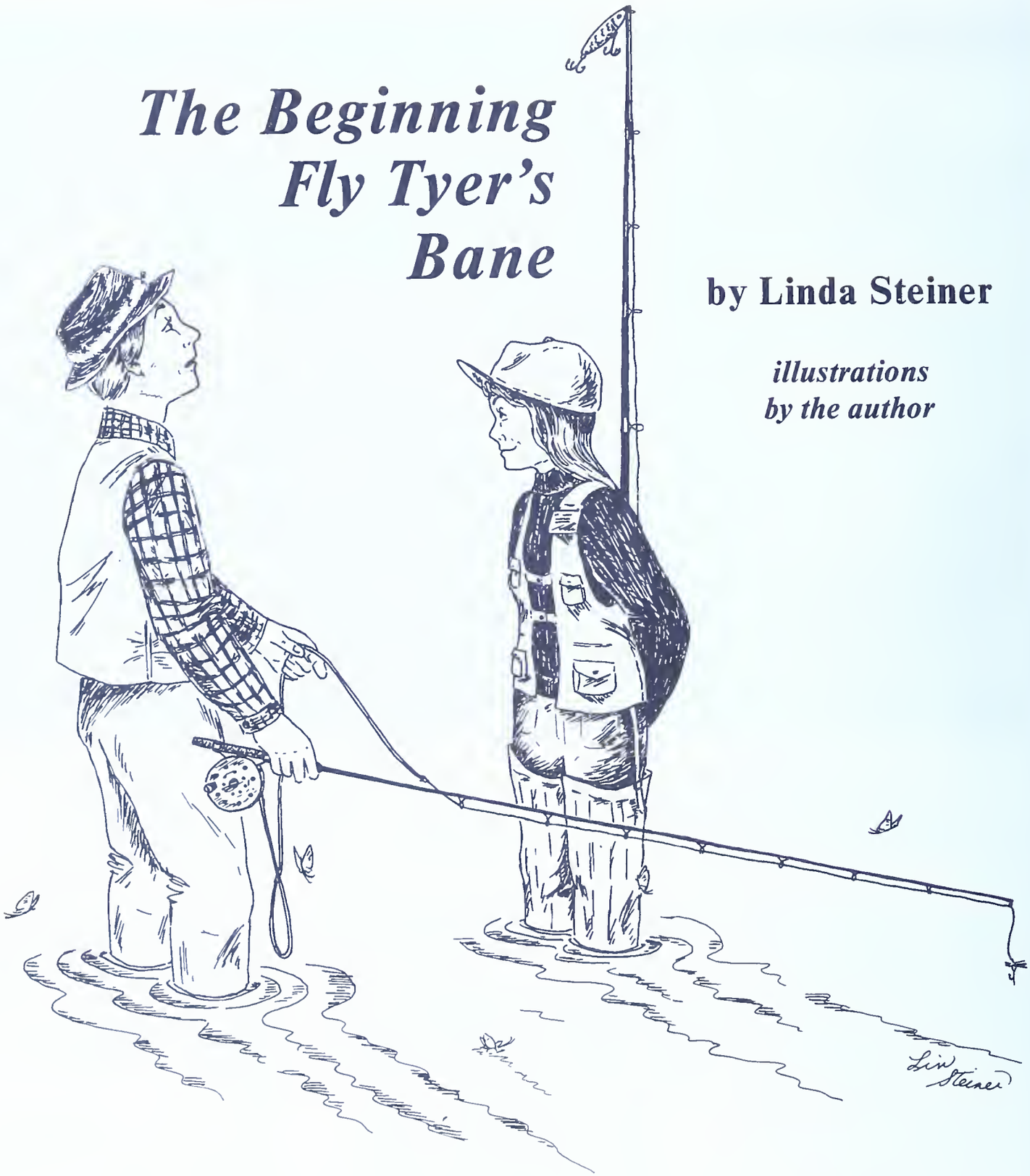
The Pennsylvania BASS Association, a comparatively new angling/sportsman organization, is proud of the fact that they can assist the Fish Commission in an important research project and also show the fishing and general public that they are willing to do their share in perpetuating excellent bass fishing in Pennsylvania.

At a "Cold Turkey" tournament held recently at Lake Raystown a check for $1,550 was presented to the Commission with the remaining balance for 1978 to be delivered in the near future. The money is raised in competitive bass fishing events. Shown in the photograph above are, left to right: Ken Messenger, Public Relations Director for Pennsylvania BASS Association, the organization's president, Vic Zakowski, Steve Sawyer, of District 4 Mr. BASS chapter, and Rick Hoopes, Warmwater Unit Leader of the Commission's Fisheries Management Section.

The Beginning Fly Tyer's Bane

by Linda Steiner

illustrations by the author



It just wasn't any use. I couldn't hide it any longer. I knew that sooner or later he'd see it. There just isn't any way to hide a 6'6" fishing pole behind your back when you're only 5'4"! Eventually he'd see it was a spinning rod with a big, fat plug on the line, the kind with hooks jutting every which way, instead of the fly rod he was using. What could I do? I was about to be found out by my fly tying teacher, my fly fishing mentor. He knew I should be fly fishing and I knew I should be fly fishing. I felt like a kid gone to play baseball when he knew he should have been practicing piano.

"Is this what it's all come to?" I wondered, "Embarrassed to be using a spinning rod; ashamed to be seen with a Jitterbug on the line; afraid of being caught with a can of worms? Is this what learning to fly fish has done to me?"

It all started innocently enough. I owned an inexpensive fly rod and a couple dozen flies, chosen mainly for their "aesthetic appeal," that is, pretty colors. Fly fishing consisted of one day a year when I tired of catching trout on the spinning rod. For real fishing, I used the meat getters: a spinner, worm or trusty Velveeta.

But I wasn't satisfied. I had to learn



what all the fuss was about "fly flinging." What was this "purist mystique" anyway? Besides, I figured I might be able to save some money tying my own flies. My collection had become terribly depleted, with most of the flies left in trees along the way. I decided to sign up for a course and learn enough fly fishing and tying to satisfy my once-a-year urge, and no longer look ridiculous on the stream.

That, of course, is impossible. Like any pleasing habit, fly fishing becomes rapidly addictive. I even had to buy a custom-made graphite rod, a Hardy reel and one of those silly Irish hats. I'm "hooked" now, but I still try to keep my equilibrium, still give into the occasional urge to cast a Jitterbug or dunk a worm. I think I'm new enough at the "fly madness" game to recall some of the pitfalls that await the next initiate.

Fly fishing is a strange, new world for a bait and lure fisherman to step into. So many new rules to learn; so many old ones to break. When I first started fly tying class, I became aware that, in that classroom, there was no other way of fishing. I don't know what I'd been doing all those years, but it sure wasn't "angling" to them. To even ask if they used a worm to catch the trout they were showing off was akin to sacrilege: it would make the room go icily silent.

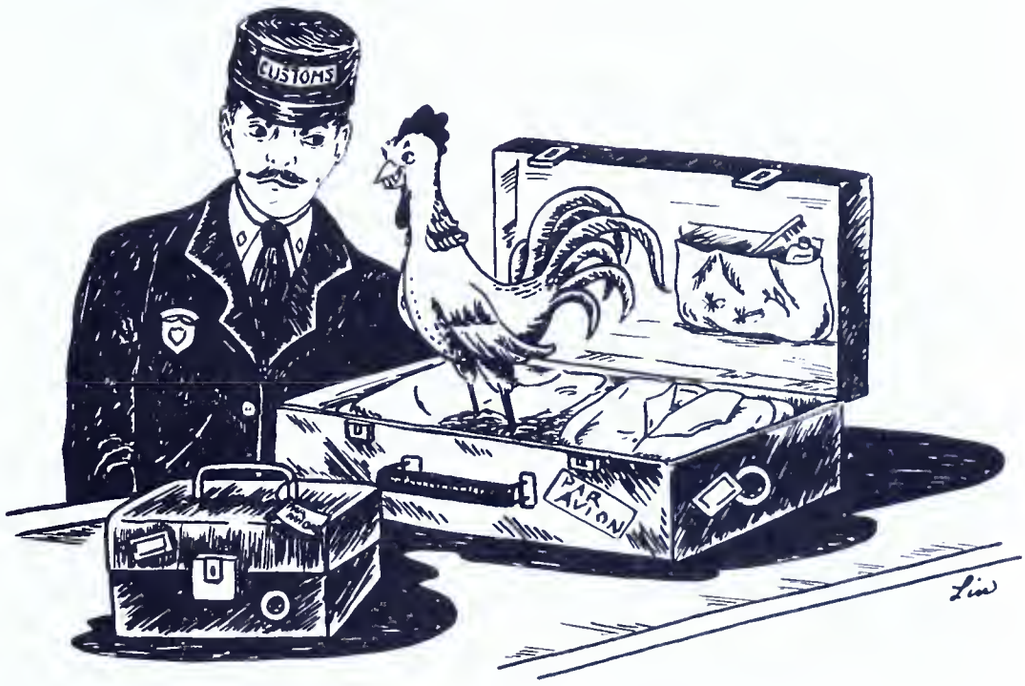
When I began tying, I thought I could use materials I had on hand, like sewing thread, extra hooks from the tacklebox, parakeet feathers and the leftover pieces from one of those "instant" fly tying kits I had as a kit. I figured I'd have it mastered in no time.

But, for some reason, most fly tying doesn't employ any materials I had ever seen before. The pattern originators must have delighted in the thought of future fly tyers trying to find things like the "amber seal's fur and underfur of polar bear" that are recommended for a nymph body. I understand the original pattern for "Tupp's Indispensable" used some rather difficult to obtain fur. Anyway, the ram couldn't be expected to stand still while you took it! "Finely barred teal pinfeathers" and "cochy-bondhu hackle barbules" weren't exactly readily available household items.

That was only the beginning. I learned that each pattern must be tied perfectly, with the exact color shade of fur or feather, number of turns of hackle and degree of wing slant. And yet, with all this attention to detail, most of the flies are not tied as exact imitations of the bugs. In fact, often they don't represent any bug at all. Something like the "Fanwing Royal Coachman" struck me as more of a regimented art form than a fishing lure.

It dawned on me that in order to be an expert fly tyer, I would have to become a world traveler, a hunter of exotic species and a lawbreaker. The best fly tyers can have only two other hobbies, duck hunting and trapping. Actually, these pastimes only feed the fly tying habit. There is just no other good way of obtaining the needed wood duck feathers and muskrat fur.

I guess it would help to be a well-rounded hunter, though. Fly tyers need buck tails, but only those with a certain curliness of hair, selected feathers of turkey, grouse and pheasant, red fox (belly fur being preferred), black bear hair, and even moose mane. A really dedicated fly tyer brings the mane of the moose



home for his trophy and leaves the horns behind! But I finally decided that the beard of the male Eastern Wild Turkey would have to be an acceptable, more easily obtainable substitute.

To tie some of the patterns as they were conceived, I'd be tempted to be an international poacher. Polar bear fur seems to be a favorite for streamers, as it has good action in the water. I bet I would, too, if the bear caught me pulling out a few hairs! The nymph pattern "Bailey's Mossback" requires Condor quills. For many years, the only accepted thing to use for streamer eyes were feathers from a jungle cock. I wonder how many years trying to smuggle one of those home would get me in a Far Eastern prison?

My friends thought I was a chicken farmer on the side, with all the necks that were piling up in the house. I had toyed with the idea, but realized that plain, everyday cluckers wouldn't do for fly tying. No, the birds have to be just the right shade of red, ginger, cream, grizzly, and with the correct stiffness of feathers. The specs are enough to make the ordinary barnyard rooster feel downright inferior. I was afraid to turn to the next page of tying patterns, for fear they would require something really scarce, like hen's teeth!

Sometimes it seemed that the tying patterns were a plot by the trout to harrass the fisherman. In tying a pattern, I reasoned that if the fly isn't an exact imitation of a bug, I could take a shortcut and use dyed feathers, No, *dyed* Blue Andalusian is no good to the serious tyer. It has to be natural or nothing. But do you know how expensive that is, and how few roosters have the right shade of blue? And furthermore, do you realize how many fly patterns require that color?

I started wondering why patterns didn't call for some of the things that were always lying around the house, like *dog hair*. Sorry I asked. The "Boercher" pattern requires "two black whiskers from a fox or other animal muzzle." (Watch out, Rover!) Polar bear hair being a little scarce these days, one fellow in the tying class mused how much his dad's white locks resembled the needed fur. "Besides, the old man wouldn't notice a little haircut the next time he was napping." The fly fishing habit will drive men to strange deeds.

Before I knew it, fly tying began to penetrate every aspect of my life. Feathers were appearing all over the house. The spare room looked like a taxidermist's shop. There were drying pheasant wings, wood duck skins, deer tails, even some peacock tail feathers somebody grabbed for me when the bird wasn't looking. I realized I would do anything for fly tying when I began to rub off that beautiful iridescent color of the peacock eye to use the drab quill underneath.

I began thinking of everything in terms of whether or not it could be wound on a hook. A rabbit would run through the garden and I plotted how I could get that "hare's ear nymph" out of the sweet peas. We'd go deer spotting at night and count the number of "bucktail streamers" in the fields. I described my kitchen color scheme to a neighbor as being "Royal Coachman."

I broke the language barrier when terms like "Rat Faced McDougal," "Iron Fraudator" and "Ephemera guttulata" actually began to make sense. I felt like part of the elite when I knew that "Sparse Grey Hackle" referred to more than a fly dressing.

Now, copies of tying material catalog's, can be found where thumbed pages of Sears and Roebuck used to be. There's a table in the corner always piled high with tying materials and my fishing vest has more fly wallets in it than salmon egg jars. I don't think I'm a "Fly Fishing Snob" yet, but then, why do I feel I have to sneak my spinning rod out of the house to use it?

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THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Nature gave the bluegill an advantage in that relatively thin, disk-shaped body. The bluegill is able to move easily among weed stems and other vegetation in search of food, and also to escape the attacks of predator fish.



Insist on dry flies that have stiff hackles, when you buy them or make them yourself. The points of the hackles may penetrate the surface film of the water, but the hackles will keep the hook above the water surface. Some hackles may be stiff enough to float the fly without help from a tail. But stiff tail fibers are a help, even with the best hackles.

Wet flies are excellent all during the trout season and under all weather and stream conditions. They will take fish when a floating dry fly or a streamer is impossible to use or is ignored by the fish.

Use the smallest spinners you can buy in fishing for trout.

If bass seem to suffer from lockjaw during the daylight hours, go after them at night. They eat sometime during the 24-hour period.

Lures of midget size have a built-in advantage for the angler. Because they are small, they can be cast more often to a single "hot spot" without disturbing the fish to the extent that larger lures would.

Permit some slack in the line after a wet fly has been cast into current that will carry it downstream. A slack line permits the fly to sink down into the water as it floats, but a taut line will hold the fly near the surface, where it is not really effective most of the time.

Glass or graphite rods are more rugged than those made of bamboo, but still they deserve care. After a day of fishing, use a soft cloth to remove moisture from the rod, then store it in a metal or fiber case. Excessive moisture can in time weaken the guide wrappings on the rod, and storage in a stout case will prevent accidental damage.

Quiet water pockets in riffles, which are great holding spots for trout, can be fished with a dry fly. Make short casts, and hold the rod tip high to keep as much line as possible off the water. One or two floats over each pocket area are enough to give any trout a view of the fly.

Variants, spiders and bivisibles are good dry fly patterns because they float high, giving trout a general impression of a natural insect. Besides, they are easy for the angler to see on the surface, even in broken water.



Tie a tiny snap swivel to the end of a casting line, and on the swivel put a spoon. Cut a piece of leader about two and one-half feet long and attach it to the swivel beside the spoon. Then on the free end of the short leader attach a fly and a spinner or a streamer. A fish may ignore the spoon but hit the streamer or spinner hard as it comes twinkling behind the spoon on the retrieve.

Don't try to scoop up a hooked fish with a landing net. Instead, hold the net in the water and lead the fish into it, then lift the net with a smooth motion.

If your fly rod is marked to handle a line of certain size, No. 7, for example, buy that size no matter whether the line is level, tapered, floating or sinking.

Marabou jigs and streamers should look like miniature powder puffs when they are dry. Marabou compacts amazingly when it becomes wet.

Good early season wet flies are the Gold-ribbed Hare's Ear and the Leadwing Coachman in Size 12.

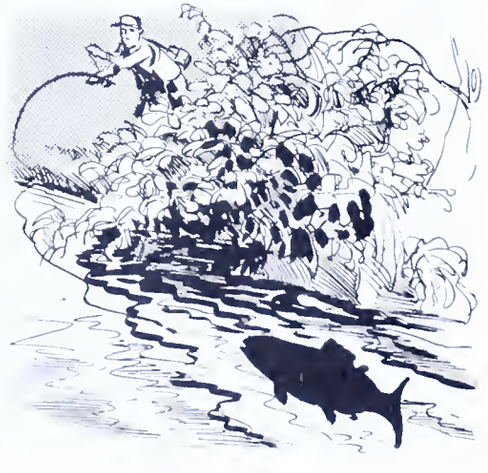
A fish released without removing it from the water is much more likely to survive than one held in the hand or in a landing net while the hook is extracted from its lip.

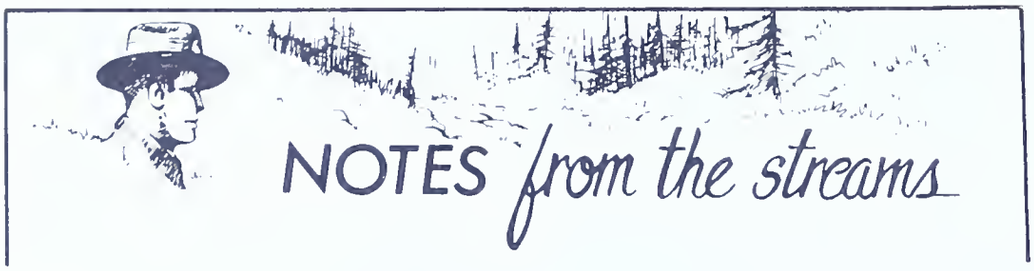
A sneaky trick to play on fish which may be lying at the head of a stream pool is to wade around in the riffles some distance above the pool. The disturbance often will dislodge nymphs and other aquatic life in the riffles, send them floating down into the head of the pool, and start the fish feeding.

In buying a new spinning or casting rod, make sure that the handle has a good locking device that will keep the reel from becoming loose or dropping off when the outfit is being used.

Patience of a Job is an essential part of successful fishing. It takes time and thought and willingness to experiment to solve problems encountered on a stream or lake. The fellow who loses his temper never solves angling problems.

In fishing with imitations of land insects such as grssshoppers, crickets, ants and inch worms, the lure must hit right on the target, close along the shore and under the branches of trees and streamside vegetation. These are the arcas in which the natural insects fall onto the water, often right over the heads of feeding fish.





GLENDALE—TROPHY SPOT

On August 12, 1978, Mr. Wayne Holmberg, of Ashville, caught the largest musky ever to come out of Glendale Lake. He and I are shown holding his trophy which measured 50 inches, and weighed in at 26 pounds. Wayne caught it on a red and white Swim Whiz. By the first week of September Wayne had caught three more muskies measuring from 31 inches to 42 inches. He's not alone with his trophy catches. Other fishermen have been catching muskies right along—the longest up to now was a tiger musky, 47-½ inches long.

Since being assigned to Cambria County in 1974 I have seen the lake produce a variety of trophy catches: 1974, a 44¼-inch northern pike and a 29½-inch walleye; 1975, the first large Amur Pike — 41¾ inches long, weighing 15 pounds; 1976, an Amur Pike measuring 45 inches and weighing 27½ pounds; 1977, the longest Amur Pike recorded as being taken on "hook and line" *anywhere*, a 48¼-incher, weighing 24 pounds, was caught at Glendale.

Other large fish include a 33½-inch channel catfish and a largemouth bass which taped 24 inches. There is no doubt in my mind that Glendale Lake may produce some other record fish in the years ahead.

Robert L. Kish
Waterways Patrolman
Cambria County

"PEEKABOO"!

I had always been curious about one of my deputies' desire to help out Waterways Patrolman Joe Bartley at Lake Wallenpaupack as often as possible until I heard about the following episode.

One day, while checking fishing activity in a remote area on a small stream, he heard suspicious sounding voices from the bushes. He crept forward as quietly as possible so as not to alarm the source of the sounds. He edged nearer and nearer to the unsuspecting person and, stepping out to inspect their fishing licenses, he found that he had sneaked up on four young lasses swimming without the aid of clothing!

Frank Schilling
Waterways Patrolman
Philadelphia County

RUN FOR IT!

Two anglers from the Benton area were fishing Big Fishing Creek last summer. One man began fishing upstream from Route 64. The other gentleman, a newcomer to the stream, parked the car at the next bridge upstream and began fishing up to the next bridge. On his first cast, the newcomer caught a sixteen-inch brown trout. Moving up to the next hole, he glanced across the stream and noticed a "LAMAR NATIONAL FISH HATCHERY" sign.

Panic set in and the newcomer scrambled up the mountainside, well away from the stream, and proceeded upstream to the next bridge. His partner and I were waiting at that bridge when the newcomer arrived. He was wringing wet with sweat, arms were scratched, boots snagged and his clothing dishevelled. He told us that the ease and quickness of catching such a fine fish combined with the "Hatchery" signs, confirmed to him that he was in a ***"No Fishing"*** area and that if he tried to return to his unhidden vehicle, he would surely meet the *"warden"* and be in serious trouble. So, he took the mountainside and its briars, laurel, rocks, sticks, snags, and fallen trees. After we explained to him that it was perfectly legal to fish that fine section of stream he had just detoured, the three of us concluded our meeting with a good laugh.

Jay B. Johnston
Waterways Patrolman
Clinton County

NO "SLOW LEAK"!

Last summer, as Deputy Al Tate and I were beginning a patrol of the Shenango Lake, Al's two sons, Al and Keith, were launching their boat at a nearby launch ramp to go fishing. With Keith in the boat and Al backing into the water, all appeared to be a normal launching. With the boat floating from the trailer and Al driving toward the parking lot a frantic yell was heard, "Hey, Al, where's the plug?" Upon looking toward the sound of distress we saw Keith trying to keep the Shenango from coming into the boat through the drain with one hand while trying to row to shore with the other, which he succeeded in doing in fine fashion. After the oversight was corrected, the young men had a beautiful day of angling.

Larry V. Boor
Waterways Patrolman
Mercer County



"MIS-HOOKED"!

While patrolling Levittown Lake during the extended trout season, I approached a fisherman loading his gear into the trunk of his car. I could not help noticing that he had two nice trout in a plastic bucket.

Unaware of my presence until I commented upon his success, the startled man turned to face me. At this time I observed that he had what looked to be a size 10 fish hook deeply imbedded in his forefinger.

He asked me if I had a pocketknife that he could borrow to cut the hook out of his finger. I answered that I did not.

uggested that he seek medical assistance n removal of the hook and that he might ossibly need a tetanus shot.

As I left him, I asked, "Does it hurt?"

He answered, "No."

I said, "Don't worry, it will!"

Wayne L. Imler
Waterways Patrolman
S/Bucks County

FAST ACTION —

So many times conservationists are uick to point the finger at those responsi- le for pollution, and I'm one. Last fall the gway people had the misfortune of one of heir fuel trucks wrecking and overturning. undreds of gallons of fuel oil spilled out nd drained into a small tributary that lows into Little Sandy Creek. Answering a adio call, I met Trooper Camp who had lerted me to the problem. As the fuel oil lowly began to enter the tributary, the ersonnel from the Brookville Agway erminal began to fight to stop it. They sed heavy equipment, hand tools, and vorked late into the night, but they did ontain the oil. The next day demonstrated hat the emergency separator that they had onstructed on the scene had limited the ill to approximately a half mile, sparing he stocked trout stream below.

H. Porter Duvall
Waterways Patrolman
Jefferson County

"HOT" SPOT!

A fellow phoned me, concerning pay- ment of a fine for trespassing in a wired rea. (These are sections of streams marked off by strands of wire in which fish re stocked and fishing is prohibited during certain periods to provide better ishing for more people over a longer eriod of time.) Therefore, the man's hoice of words describing the violation ort of threw me when he said, "I got caught in one of them *fish pens!*"

D. F. Parrish
Waterways Patrolman
McKean County

TRICKY CATCH

The following was related to me by Deputy Waterways Patrolman Gerald Thompson.

On November 4th, a fisherman came to the Walnut Creek Access Area office and reported one of the oddest ways to catch a coho salmon. The fisherman was trolling off Walnut Creek and hooked into a mono-filament line with his lure, and, in reeling in to clear the line from his lure, the "line" started to pull away. After getting a firm hold on it, he brought in a 28-inch salmon with a Dardevle lure in its lip.

About an hour later another fisherman came into the office and started that while fishing off the jetty, using a Dardevle lure, a large fish broke his line after a short battle and got away. The fisherman was surprised when Deputy Thompson told him that what it was he lost was a 28-inch coho, relating to him the story of the previous fisherman's odd catch!

Norman E. Ely
Waterways Patrolman
N/Erie County

NOT TOO GOOD!

A few weeks ago I gave Deputy Waterways Patrolman Robert Karpauitz, of Towanda, some homemade jigs for musky fishing. When I gave them to him he said he didn't think they looked very spectacular, but that he would give them a try. About two days later he called and said, "Those jigs weren't very good. I fished for two hours and only had three bites . . . caught three muskies: a 28-incher, a 41-incher, and a 44-incher!" Picture shows him holding the two legal ones.

Stephen A. Shabbick
Waterways Patrolman
Wyoming County



READY REFERENCE —

While patrolling during the winter season, I encountered a fisherman who had a white plastic 5-gallon bucket with him.

Many ice fishermen carry their gear in this type of container and also use it as a seat while tending their tip-ups or jig rods.

The uniqueness of this fisherman's bucket was that he had painted all of the seasons, sizes, and limit regulations on the outside of the bucket for ready reference.

Bud Flyte
Waterways Patrolman
Somerset County

NO STOPPING THEM!

For some local anglers there are only two times of the year when they cannot catch fish: the week that the *new* ice is too thin to walk on and too thick to fish through; and, then again, when the *old* ice is in the same condition. However, if the serious fisherman does not want to seek out flowing water, open to fishing, they still always seem to find a way to fish the lakes. A recent trip to Lake Irena found the new ice being broken from the edges by logs, rocks, and window weights tied to a piece of line, lobbed into the air and retrieved. Where there is a will there is a way.

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

GREAT GESTURE —

Winter is a good time to remember that big bass, trout, etc., that you got last season, or for that matter, those that you didn't get. It's also a good time to remember that landowner who left you on his property, particularly when you consider what *he* had to gain by being so generous. For the price of a stamp you could probably do more for the future of fishing by saying "Thanks" in a note, card or letter than any other way. It will also make you feel good — I promise.

Ronald L. Hoffman
Waterways Patrolman
S/York County

WHAT NEXT!

The telephone calls I receive are mostly from curious fishermen seeking new places to fish or boat; however, some are quite interesting.

One such call was from an elderly person wanting to know if the bluefish caught in the Delaware Bay were safe for human consumption. The best yet was an inquiry regarding tuna fish in cans from one of the local supermarkets . . . was it safe to eat?

Frank Schilling
Waterways Patrolman
Philadelphia County

The Little Yellow Stone Fly Nymph

By Chauncy K. Lively
photos by the author



Pine Creek
Photo by Russell Gettig

Any mention of stone fly nymphs generally brings to mind the magnum forms: the huge Pteronarcys or the gaudy Perla and Acroneuria. The big nymphs of these genera are always relished by large trout and anglers know them well. But there are also many smaller stone flies whose nymphs are well-represented in the riffles of most trout streams in the eastern U. S. These include the nymphs of the genus Isoperla and especially I. *bilineata,* the species whose adult bears the common name of Yellow Sally.

As with certain other insects bearing common names, American anglers borrowed Yellow Sally's name from the British Isles, where it had been assigned to the English counterpart, I. *grammatica.* But despite its romantic ring, her name has been both praised and denigrated on both sides of the Atlantic. Halford, who regularly performed autopsies on trout, declared he had never seen a Yellow Sally among the varied fare found in a fish's stomach. Earlier English writers speculated that the insect had a bitter taste and therefore not appreciated by trout. Preston Jennings observed that the Yellow Sally of the Catskills was "not of a great deal of use to the fly-fisher." The views of these angling stalwarts were undoubtedly warranted in their time and place but others have referred to the pretty little insect with fond affection and I find myself siding with the latter group. There have been too many occasions—notable on Young Woman's Creek, Slate Run, the Au Sable River and other streams—when fishing to the adults with a Michigan Stone dry fly and nymphing with a Little Yellow Stone Fly Nymph were simply too good to regard as insignificant.

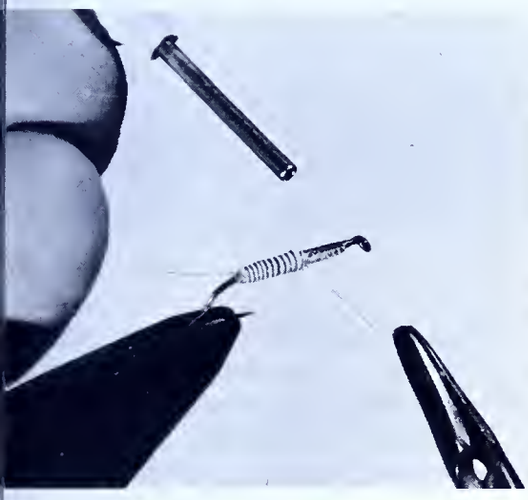
The natural nymph of Yellow Sally gives the impression of sturdiness but lacks the robust bearing typical of the larger stone fly species. Its coloration is pale yellow with brown markings and its legs are hairy and flattened. In the Little Yellow Stone Fly Nymph pattern the abdomen is fashioned of a single ginger hackle rib, stripped of its barbules and wound in close, nonoverlapping turns over a flat underbody. To avoid splitting, it's advisable to thoroughly soak the hackle rib in water before using. And for durability. I like to coat the underbody with cement just prior to winding the abdomen.

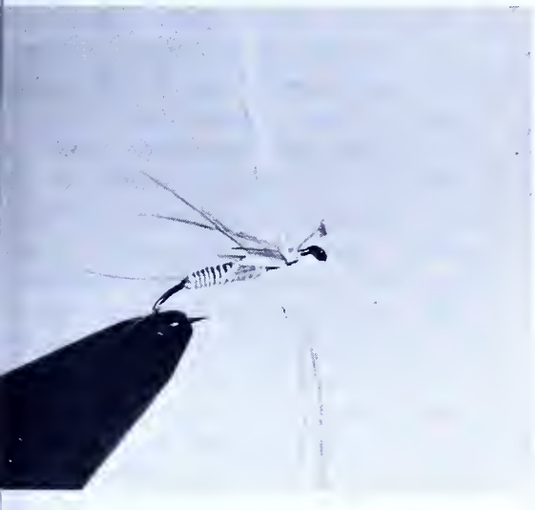
The dual wing cases and pronotum are made from two sections of goose quill dyed yellow and the legs are formed from fibres separated from the quill sections. Most commercially dyed yellow quill feathers are gaudier in coloration than the natural nymph and I prefer to tint a white goose quill with a pale yellow marking pen to achieve the delicate shade desired. Coating the quill sections with acrylic lacquer or the thin vinyl cement not only preserves the color but it makes the material more manageable in dressing.

Yellow Sallies emerge in good numbers from many of our mountain streams during June and July—and, of course, this is the best time to fish the nymph. Typical of stone flies, the nymph crawls out of the water when emerging—on boulders, logs or other convenient protrusions from the surface—and here the nymphal case splits open, permitting the adult insect to crawl out. It would appear that fishing the nymph is most opportune just prior to emergence in boulder-strewn pocket water but I have also had good success fishing the pattern upstream and across where a riffle spills into the head of a pool. Here the response usually occurs after the nymph has swung into the pool and often trout take the nymph quite forcefully.

Dressing the Little Yellow Stone Fly Nymph is not difficult but it does require a bit of patience because of the many steps required. However, once fished, the pattern is very durable and to my mind, at least, well worth the effort.









Dressing the Little Yellow Stone Fly Nymph:

Left — Form a flat underbody by cementing a strip of .018″ monofilament on either side of the shank of a size #14, 2x long hook. (Don't taper monofil.) Bind yellow thread behind eye and spiral to end of underbody at bend. For tails, strip the barbs from two smaller ginger hackles and tie in the center ribs. Tails should be apart from each other and angled outward. Then strip barbules from a large ginger hackle and tie in the rib by its tip. Wind thread forward to middle of shank.

Right — For wing cases, cut two sections of yellow-dyed goose quill, slightly wider than underbody. Cut a notch in the tip of each quill section and clamp opposite end in hackle pliers. Coat quill sections with acrylic lacquer or thin vinyl cement and set aside.

Left — Coat underbody thinly with cement and wind hackle rib in close turns to middle of shank. Tie off (as shown) and cut excess.

Right — Bind one wing case, with notch facing bend, on top of underbody at end of abdomen. With bodkin point, separate the two outside fibres of quill section at butt end and pull fibres back, at right angles, to form rear legs. Then wind thread forward five or six turns and separate outer fibres of quill section as before. Pull fibres back to form middle legs. Trim off excell quill section.

Left — Bind other wing case, with notched end overlapping rear case, in front of middle legs. Wind thread forward several turns. Then form front legs from outer quill fibres, as in step 4. Make one turn of thread in front of forelegs and bend free end of quill section back over itself. Wind thread over doubled quill back to middle legs. Pull quill upright, lift notched end of front wing case and wind thread back to rear legs.

Right — Wax thread next to shank and apply dubbing of yellow-dyed fur or synthetic. Wind dubbing under front wing case and forward to eye, taking care to avoid legs.

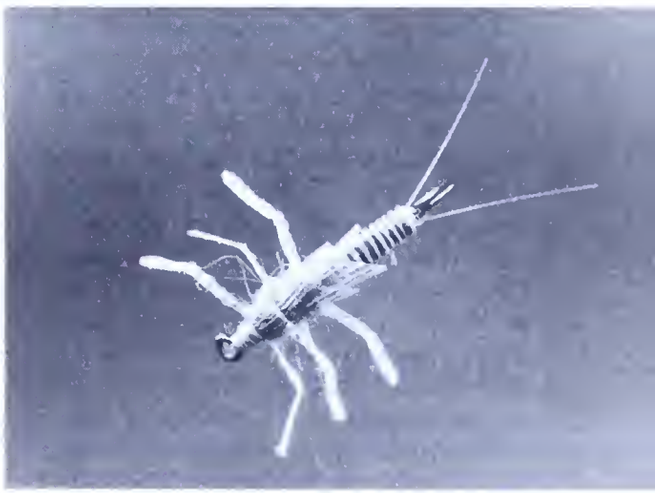
Left — Pull end of quill section over dubbing and tie off behind eye to form pronotum. Trim legs to a length slightly greater than gap of hook. Trim off excess quill in front and whip-finish.

Right — Finally, coat legs with acrylic lacquer or vinyl cement and when nearly dry, bend joints with tweezers. This completes the Little Yellow Stone Fly Nymph.











Getting on the water early, before the waters are crowded, can be fun but extremely dangerous if you fall overboard. Larger, more stable craft, as pictured on these two pages, lessen your chance of taking a sudden dunking, but don't rule it out completely. How much do you really know about cold water dunkings? Take the "Cold Water Test," on page 30.

Ashore & Afloat

by Gene Winters

In just a few short weeks the first of the new season's boaters will hit the water, excited and filled with the anticipation of the weeks and months of boating fun that loom ahead, their winter hibernation over . . . bursting with life, vim, and vigor; and, most likely, oblivious to the fact that death can come so quickly.

For early season boaters especially, following all the rules of safety may not be enough. That unavoidable accident, that one-in-a-million incident may happen and someone may die.

In spite of annual warnings about the inherent dangers in cold weather boating, each and every year many come frighteningly close to death and a few reach out and touch it.

Not only has much medical research and investigation recently found detailed reasons for such rapid death in cold water, but they have gone a step beyond and come up with new cold water survival gear and techniques that could be a lifesaver in an emergency. But, first, let's take a look at just a couple of case histories on file with state or federal boating authorities:

It was a cold March day. Nine U.S. marines were canoeing at top speed across the Potomac River near Washington, D.C. Someone aboard the canoe made an error and the craft capsized one football field length from shore—only 300 feet away from shoreline safety. The marines, all in excellent physical shape and excellent swimmers as well, struck out for shore, confident they could easily make it. *Within 15 minutes, all were dead.* The shock responses of their bodies to the sudden exposure to very cold water were responsible for their deaths.

The cold water, autopsies showed, had claimed the lives in various ways. The heart rate and blood pressure of several marines' bodies rose sharply, resulting in ruptured blood vessels and heart attacks. At least one of the men succumbed to hyperventilation (overbreathing) and swallowed sufficient water to suffocate. Two others fell unconscious and drowned, hyperventilation producing changes in blood chemistry.

Another case in point occurred one late afternoon in March. A young man and his girlfriend braved high winds and an icy-cold chop for the first sail of a dawning season. Unexpectedly, the bow plunged under an oncoming wave and the boat swamped, then rolled over and capsized. The young man, fearful of attempting a long swim to shore in the frigid waters, elected to stay with the boat. He found some line floating in the water and lashed his friend and himself to the floating but capsized hull. Their heads safely above the water, cold but still confident, they waited. The young sailor was sure they would be spotted and rescued within an hour or so.

He was correct. One hour and ten minutes later, the couple was found by a fisherman returning to shore: but, *they were both dead,* victims of prolonged immersion in cold water.

The young folks had followed all the safety rules they had been taught, but something had been missed in their learning experience. They had not learned to be prepared to encounter *hypothermia,* a condition resulting from the loss of body heat by conduction to cold water. In a short time, they had become exhausted, then confused and groggy, finally slipping into unconsciousness and death.

The human body *tries* to protect itself when exposed to very severe cold, but it is often this very protective mechanism that actually *contributes*



.o death. The skin and body tissues ust beneath the skin cool very rapidly. The body's protective mechanism reacts, sharply reducing blood circulation to the *arms, hands, legs and feet,* keeping the circulation of warm blood within the inner reaches of the body. In just ten minutes or so, the temperature of the heart and brain begins to fall, and severe shivering develops, the body's attempt to counteract the loss of heat. When the central portion body temperature drops to about 90 degrees, unconsciousness and often drowning follows. Even if death does not come about by drowning, only another five degrees or so of body temperature reduction will usually bring about a violent, fatal heart attack.

How many boaters really know, or even care, about what happens and how fast it happens when a person is overboard in cold water? Very few! Simply because no one *plans* on being there in frigid water. It always happens to the other guy. Few read articles on hypothermia even if they accidently run across them; fewer still actively seek out such exposure. Such articles are simply not the first to be read, if ever read, in books and magazines. Most people, bruised and weary from their everyday encounters with life, are reluctant to turn to gloom and doom stories about their leisure time pursuits.

How fast does cold water kill? Pennsylvania's (Fish Commission) Basis Boating booklet has some interesting and sobering figures and contributions to present in this area (paraphrased):

"If the water temperature is 32 degrees, exhaustion or unconsciousness is likely to take place in under 15 minutes and *expected survival time* is from 45 minutes to less than *15 minutes.* Even if the water temperature is in the 55–60 degree range, exhaustion, unconsciousness, and even death can result in *as little as one hour!*

"Cold is increased greatly by wind. A 40 degree temperature, even under sunny skies, will be reduced to 28 degrees by only a 10 mph wind. Increase the wind to only 20 mph, and the wind/chill factor is lowered to 18 degrees. But don't be misled by *air* temperature because *water* temperature is often considerably lower, particularly in early spring. Note, too, that most cases of hypothermia develop in *air* temperatures between *30 and 50 degrees.*

"To detect hypothermia, watch for: uncontrollable shivering, fumbling hands, frequent stumbling, slurred speech, drowsiness, or unusual exhaustion. It is more difficult to know if you, yourself, are developing hypothermia because your senses will become dulled. A good thought to remember for cold water boaters: when the least protected or first affected member of your frostbiting crew becomes cold, *head in."*

That's good advice. There will be better (and warmer!) boating tomorrow. It can be a long boating season if you're around long enough to see it.

As mentioned earlier, new techniques in combating hypothermia have been developed. Huddling and H.E.L.P. (Heat Escape Lessening Position) are two of the latest techniques. Newly designed special protective clothing (Thermofloat ™) has also been introduced and is being promoted at seminars around the country. Full details on these techniques and new gear is, unfortunately, beyond the scope of this article. But there are plenty of books, magazines, and periodicals that are covering the subject in increasing detail. A trip to the local town or college library will expose you to a wealth of information. Many boating organizations and first aid organizations are offering expanded coverage on the subject, also.

In the interim, the Pennsylvania Basic Boating booklet not only describes the basic symptoms of hypothermia, but some basic first aid treatment as well. Before you head for the water this spring, this is the very minimum understanding and knowledge of hypothermia you should carry aboard your craft.

Unexpected capsizing . . . swamping . . . falling overboard!

CAN YOU SURVIVE THE COLD WATER TEST?

by Virgil Chambers
Boating Education Specialist

Over the past ten years, more than half of the fatal boating accidents in Pennsylvania have occurred in the "out-of-season" months when the water is cold. It is the prepared boater who can handle himself when suddenly thrust into cold water.

How prepared would you be? Test your knowledge of survival techniques in these situations.

1. Cold water can best be defined as water temperatures around and below:
   A. 32°F
   B. 40°F
   C. 50°F
   D. 70°F
2. The "exposure" involved with cold water cases is commonly referred to as:
   A. Amnesia
   B. Hypothermia
   C. Shivering
   D. Thermal shock
3. When boating on cold water dressing properly is important. The best clothing for the cold is:
   A. A single heavy layer of tight clothing
   B. A single layer of loose bulky clothing
   C. Several layers of light clothing
   D. Anything as long as you're comfortable
4. The extra precaution of *wearing* your personal flotation device when boating on cold water is supported by:
   A. It is extremely difficult to put on a device in cold water
   B. The PFD provides extra insulation
   C. It is easier to spot an individual wearing a PFD in the water
   D. All of the above
5. The survival time in cold water depends largely on two factors:
   A. Water temperature and air temperatures
   B. Water temperature and behavior of the victim
   C. Swimming ability and size of the victim
   D. Drownproofing and treading water
6. If the submerged boater feels his chance for survival in cold water would be increased if he swims to the safety of the shore, he should:
   A. Swim underwater coming up for the needed breath of air
   B. Use the crawlstroke because it is the fastest
   C. Use one or more of the survival strokes (modified breaststroke, sidestroke or elementary backstroke)
   D. Disrobe before he attemps to swim
7. The most effective technique to help increase survival time in *cold water* is:
   A. Holding the inner side of the upper arms tight against the side of the chest. With thighs pressed together and raised to close off the groin region
   B. Continuous movement of arms and legs in various patterns keeping the head high out of the water
   C. Restful floating, lungs full of air, face in the water periodically lifting head for a breath of air
   D. Swimming in a small circle to keep warm
8. The first sign of cold water exposure is:
   A. Unconsciousness
   B. Uncontrollable shivering
   C. Amnesia
   D. Muscular rigidity
9. How do you rewarm someone who is in a semi-conscious state after cold water exposure?
   A. Wrap the individual in a blanket
   B. Rub arms and legs vigorously
   C. Place in a warm tub, leaving arms and legs hanging
   D. Force hot drinks
10. Most drowning cases show the typical symptoms of death including no detectable breathing or apparent pulse. These symptoms, however do not always mean the victim is dead. In fact, it is possible they can be revived most effectively by:
    A. Mouth to mouth resuscitation
    B. Cardiopulmonary resuscitation (CPR)
    C. Back pressure arm lift
    D. Shaking victim and slapping face

How well did you do? For answers, turn to page 32.

PENNSYLVANIA FISH COMMISSION EXTENDS OPPORTUNITY TO COLLEGE STUDENTS

The Pennsylvania Fish Commission extended a rare learning opportunity to fish culture students from Mansfield State College recently, giving them a close-up view of the newest methods of raising fish for sport.

D. Ray Merriman, superintendent of the Oswayo Hatchery near Coudersport, rolled out the red carpet for the college students and Keen Buss and Dr. Vincent Smichowski of the college's biology faculty.

Fish culture is the science of breeding and raising fish for sport and food. Improvements made in fish culture technology during recent years have raised hopes that fish culture will improve sport fish production and also become a major source of food in the future.

Many of the improvements have been pioneered by Keen Buss, who is now spearheading the fish culture program at Mansfield State. Buss hopes the college's program will produce talented students able to use the techniques implemented and developed at the Oswayo Hatchery and elsewhere.

The fish culture students and teachers looked at some new methods for supplying oxygen to the water in which fish are raised, and they inspected the Oswayo Hatchery's method for controlling waste water — also one of the most up-to-date procedures. The students toured the visitor center and hatchery facilities, and they were shown the design for trucks used in trout stocking.

Hatchery foreman Richard Kinter demonstrated the spawning of trout and explained egg incubating methods. Later, under Kinter's expert supervision, Mansfield students were allowed to spawn trout from some of the hatchery's surplus brood stock.

Jerry D. Lawton and David Galley, members of the hatchery staff, showed the students how trout were marked by clipping their fins and taught the students how to pack eggs with ice and oxygen for shipment.

According to Dr. Smichowski, "The tremendous cooperation we received from Fish Commission personnel adds a major thrust in our task of training students in the newest scientific methods of fish culture."



Mansfield State College Fish Culture Curriculum students watch Superintendent Ray Merriman, of the Oswayo Fish Cultural Station, as he demonstrates procedure used in testing a palomino trout for eggs.

The college's fish culture program, initiated last year, hopes to contribute a source of talent for state, federal, private and commercial hatcheries as well as for American aid programs overseas in the raising of fish.

"New technology will reduce the cost of rearing fish," Buss pointed out, declaring that the methods can be used by commercial hatcheries to help supply much-needed protein in the world.

"Hatcheries producing fish for sporting purposes, an increasingly important use of fish, will also benefit," Buss added.

The growth of the Mansfield program has also been aided by the unstinting cooperation of Dr. Roger Herman, Buss said. Herman is director of the U.S. Fish and Wildlife facility (Asaph Station) near Wellsboro.

Buss, a former director of the state's fish research station in Centre County at Benner Springs, says he hopes the Mansfield program will develop a pool of fish culture specialists who will be able to work in — and perhaps someday manage — fish hatcheries, thus contributing to improved sport fish and food fish production. Buss says he especially appreciates the cooperation given to the college by the Asaph Station and the Oswayo Hatchery.

Answers to "The Cold Water Test"—

1. **(D) 70°F.** This one is difficult even for the experts to define. It is estimated to be around and under the temperature of 70° F. However, this could vary in each case due to the specific circumstances and physical conditions of the person involved.
2. **(B) Hypothermia.** Hypothermia is coined from two Greek words, hypo (low) and thermo (heat). Hence the term hypothermia (low heat) herein, applying to decreased body heat.
3. **(C) Several layers of light clothing.** This will offer better protection than a single heavy layer. Next to a diver's wet suit, wool clothing offers the best protection.
4. **(D) All of the above.** All the answers given are excellent reasons for wearing that PFD and could save your life.
5. **(B) Water temperature and the behavior of the victim.** This is based on heat loss. The colder the water the greater the absorption of body heat. In addition if movement is kept to a minimum this reduces the amount of heat generated and lost from the body. Therefore one could in fact lengthen their survival time by behavior which involves little movement.
6. **(C) Use one or more of the survival strokes.** Should you decide swimming to shore is your best chance the modified breaststroke, sidestroke, or elementary backstroke should be used. These strokes involve less exertion than the typical overhand swimming or crawlstroke. Also in these survival strokes the head should always be kept out of the water to help retain heat. Research has shown one of the greatest heat loss areas is the head.
7. **(A) Holding the inner side of the upper arms tight against the side of the chest. With thighs pressed together and raised to close off the groin region.** This method is called H.E.L.P. (Heat Escape Lessening Posture) It protects the regions of the body which are the critical areas for heat loss, the side of the chest and groin area (the head also has a high rate of heat loss but, it is normally held out of the water).
8. **(B) Uncontrollable shivering.** Shivering is a reflex mechanism used by the body to produce heat.
9. **(C) Place in a warm tub, leaving arms and legs hanging over the side.** It is important that the victims arms and legs be kept out of the water to prevent the cold blood from the limbs being forced back into the body resulting in further lowering of the core temperature.
10. **(B) Cardiopulmonary resuscitation (CPR).** This is the emergency first aid procedure which involves artifical breathing and artifical circulation that allows the rescuer to maintain life until a victim recovers or until advanced life support is available.

I hope you did well on this cold water test. It is basic information which should be known by all sportsmen who use boats during the cold water months. If you're not satisfied with your score, the Fish Commission has an excellent pamphlet on Survival in Cold Water which is yours by writing:

BOATING
Pennsylvania Fish Commission
Box 1673
Harrisburg, PA 17120



Ray Stydinger, Thompsontown, with his prize catch: the largest musky to come out of the Juniata River to date. The lunker measured 45¼ inches, weighed 32½ pounds. Photo: Russell Gettig.

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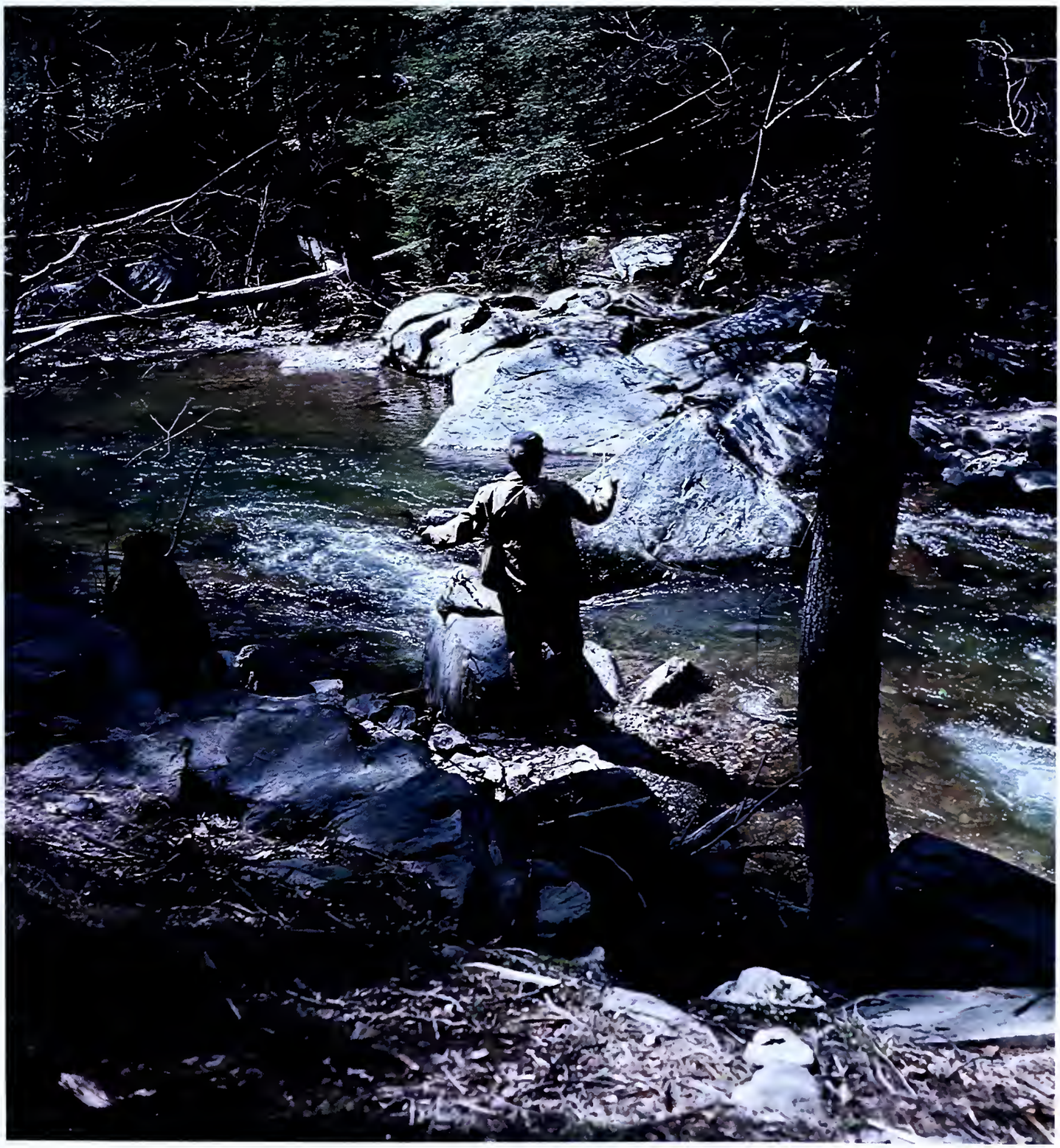

FISHING IS FUN
PENNSYLVANIA FISH COMMISSION
KNAPHEIDE

APRIL—1979

PENNSYLVANIA Angler

the Keystone State's Official FISHING·BOATING Magazine...

30¢ Single Copy





A Special Time—

Pennsylvanians are accustomed to four distinct seasons. And although we may gripe about one of these intruding unconscionably into the domain of the next season, basically we are resigned. I happen to prefer winter over the hot, hazy and humid days of summer, but my point here is that three months of anything that is constant seems to be just about enough. Toward the end of spring, summer, fall or winter, we look with quarterly anticipation to the next setting of atmospheric conditions that will have great influences on our lives.

And so it was at the end of February, despite my normal tolerance and affinity to winter, at the sight of remnants of dirty snowdrifts and windrows of abrasives spread on the highways, I began to feel very strongly that enough was enough, and we were now ready for the next season.

Certainly a reliable harbinger of the new season is the sight of the Pennsylvania Fish Commission's Great White Fleet — those 44 shining white trucks with our own hand-built tanks carrying 16-month-old catchable size trout — the products of our fish cultural stations — to over 900 streams and 96 lakes across the Commonwealth.

I will not pretend that this is that great singular surge of life that occurs every springtime, but those of us who spend our lives with fisheries think of the first of March as another kind of awakening.

I goofed off for over half a day; dropped quietly in behind one of those white distribution units at our Big Spring Hatchery and followed it through Adams and York Counties while it dispensed over 3,400 animals from our propagation branch into public waters of the Commonwealth.

Following the truck through sleepy villages surrounded by equally dormant apple orchards, I was pleased to see the flashing of headlights from cars going in the opposite direction. The driver of the truck obviously couldn't see some of the reactions I saw while following him: smiles and obvious conversations within those cars . . . some of those aired publicly over CB radios:

"Boy, it must be spring. There's a fish truck."

"Wonder where they're going?"

"Well, you can count on them . . . those fellows do a good job."

"What's a license cost this year?"

I was tempted to answer that question and tell them that $9.00 for a year was a bargain in this state, or anywhere else that you wanted to enjoy the variety of fishing opportunities provided by an independent administrative agency — but we resist talking on CB radios. Fortunately, by coincidence, a friendly voice came back and said:

"What difference does it make? Whatever it costs, it's a bargain."

That made the day.

I was delighted to see the volunteers that turned out. Some of them brought along very small children who wanted a hand at stocking some of those ten to twelve-inch browns and rainbows salted with a couple dozen four-year-old trout that will provide a challenge and hopefully a reward to those skillful enough to win the challenge in the contest.

As I drove back to Harrisburg and the prospect of the office, the phone calls and the endless paperwork, I could only reflect that I was very, very proud of our fish cultural stations and the men who have duties that go on 24 hours a day, seven days a week, all year long; waterways patrolmen and deputies that round up those great volunteers among the sportsmen who carefully and lovingly plant these products of our system into Commonwealth waters, and think that early March could be justified as one of the greatest times in the whole year.

Ralph W. Abele,
Executive Director

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

Published Monthly by the
PENNSYLVANIA FISH COMMISSION
COMMONWEALTH OF PENNSYLVANIA
Richard L. Thornburgh, Governor

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ON THE COVERS

The coming of spring brings out the "outdoorsperson" in each of us. That something different in each of us is what makes each day of spring unique . . . and precious. Bird-watchers scan the skies, hikers search for signs of that "newness of life" in the appearance of wild flowers. "Our people," anglers and boaters, seek their thrills in ways that sometimes only they understand. Winter's hold is broken . . . spring freshets beckon the trouter and the white water enthusiast alike. Photos by the editor.

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James F. Yoder, Editor

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"YOU CAN HAVE IT!"

I have been reading the *Pennsylvania Angler* for a few years and it bothers me that there are so many complaints about the amount of space and material used in your fine magazine concerning trout fishing and related subjects such as fly tying, club activities, etc. After all the name of the game is "Fishing." How else would anyone be able to convert the uninitiated to the fine art of trout fishing? The way word pictures are painted of beautiful settings, creeks, hatches, rises, presentation of lures and even the terrific battles put up by the trout is enough to make one drool. It would be wonderful if more people would take an interest in trout fishing. This would suit me just fine.

Now the nitty-gritty of this letter is that the more people that fish for trout means that there will be fewer fishermen crowding me whenever I go to fish for muskies, northerns, walleyes, bass and other species. Bet you've guessed the truth about me now. I'm no trout fisherman. I've tried it and don't care for it, you can have it. Maybe the reason you don't receive many articles from bass fishermen is that the comradeship he enjoys with fellow bassers satisfies his urge to communicate.

In all fairness, your magazine does have a good variety of articles in it. I consider anything that is written about fishing (*maybe* including trout articles) is of interest to me. When you take a good look at the *Pennsylvania Angler* there is something for everyone. Trout fishermen buy licenses and subscribe to your magazine so why not a few pages for them because the rest of the magazine is for me. I hate to admit it, but I read the trout stuff, too, for whatever I can get out of it. Who knows? Maybe I'll learn the difference between a midge and a smidge.

One thing I believe no one can find fault with is the pictures that grace the covers. They keep reminding me that Pennsylvania is the most beautiful state in the entire country and the photographers know how to present this beauty.

This letter is in rebuttal to the people who complain that too much is written about trout fishing and not enough about real (bass) fishing. Thank you.

W. L. Panko
West Mifflin



Governor and Mrs. Thornburgh visiting the Fish Commission exhibit at sport show in Harrisburg stop to chat with Waterways Patrolman Hazen.

ANYONE HELP?

This past weekend my father brought, from his house in Scranton, a reel he purchased in the early 1950s. I'm wondering if this reel is now an antique. It works beautifully and looks brand new. It is an Airex Masterreel Aristocrat Spinning Reel, Cat. #311. Airex Corp., the box says, is a division of the (original) Lionel Corp., 1460 Chestnut Ave., Hillside 5, N.J. If it's an antique I'll put it under glass, if not I will use it. Can anyone out there help me? Thank you.

Ronald D. James
318 Charles Road
Lancaster, Pa. 17603

MOST UNUSUAL

I would like to relate the following experience involving *two* fish that got away which occurred last May 7, 1978 while fishing Carbon County's beautiful Hayes Creek.

The preceding week was spent in a combination unsuccessful spring gobbler hunt and a highly rewarding black bear hunt with a camera, as I managed to obtain five color slides from a total of five separate black bear sightings within two days.

Feeling rather exhausted from the prior week's endeavors, I surmised, correctly, that a sunny afternoon of relaxation through fishing would be just the tonic to restore my depleted energies.

Some two hours' fishing, with worms as bait, passed without a bite. A warm sun, a hearty lunch and the thought of returning to work took its toll and I was soon sou asleep.

Two hours later, I awoke at 3:30 p.m. discover my line was rooted underneath windfall at one end of a shallow po Imagine my surprise when I noticed approximately 16-inch rainbow trout, wi body turning and gill covers flairin ingesting headfirst, a 6- or 7- inch bro trout which, in turn, was fast to my li and #8 hook! It appeared that the larg fish was having difficulty swallowing t smaller fish which, at this point, was on half ingested and incapable, apparently, being swallowed completely. The bro trout itself had a strong yellowish color.

Inasmuch as the angle of the sun and t shallowness of the water rendered th spectacle highly visible, I ran to may c for the camera so as to document this eve via film. As I approached with camera hand, my eagerness caused me to make o bad mistep, resulting in a thrashing swi broken line and freedom for the rainbo trout.

Still hopeful of getting a picture chased the fish from one end of the pool the other several times. It seemed that i ability to elude me was restricted by i preoccupation with its dinner and the fe hiding places within the pool.

An hour later I had four scenes, fifte minutes apart with the final one being th rainbow with just the tip of the small fish's tail protruding from its mouth.

Although I have the slides of the bla bears, the one with the Pocono Mounta "Jaws" were on a later roll of film whic unfortunately, has been lost in the mail. have not as yet given up on eventual recovering the film. If I do, and shou they be of good quality, I will send prints

n early opportunity.

Disheartening, also, is the rather severe ttering occurring along some sections of Hayes Creek — the direct result of *heavy lob infestation.*

TOM BODER
Freeland

PICKLED CARP

The lowly carp has risen to great heights n my estimation. I never thought I would e fishing for carp, but that is what I am oing. The reason is a delicious recipe for ickled carp, provided by my neighbor, Tom Alvard. This is the recipe in case nyone is interested — it takes five days:

First, fillet the carp and cut in bite-size ieces. Place in gallon jar. Soak in refriger- tor for 48 hours in two quarts of water nd one cup of pickling salt.

Second, drain and rinse, then cover fish with white vinegar. Refrigerate 24 hours.

Third, drain. Pack fish with sliced onion n jars. Canning jars are not necessary since they do not have to seal.

Heat to dissolve, and cool: 4 cups white vinegar and 3 cups white sugar. Then add 1 cup white wine, and ¼ cup pickling spice. Pour over fish and refrigerate 24 hours before eating. Keep refrigerated. Lasts indefinitely.

The process dissolves the small bones. The amount or the type of fish is not important but it must be fresh (not frozen). These quantities are sufficient for about two pounds of fish — one 23-inch carp was just the right amount.

MRS. MARION O. KURFESS
Finleyville

"DESPERATE!"

I have been receiving your magazine for about a year now, and I have enjoyed every copy. I read each issue of the *Angler* from cover to cover on the same day it comes in the mail.

I have seen a definite trend in that most of your articles concerning really good fishing, seem to be located in the central or western part of the state (perhaps it is because that is where the good fishing really is). I have been to two lakes in the eastern part of Pennsylvania — they are Wallenpaupack and Nockamixon. I *always* end up with absolute zero results.

I am planning to take a 2-week fishing vacation sometime in the summer, and I would really like to catch a big fish (just one) and I'd be in glory forever. I have a 12-foot boat and 7½ hp outboard, and I'm more than willing to go anywhere in the state where I can find *good* fishing.

I'm not particular as to what kind of fishing it is, though I would like to tie into a big musky, pike, pickerel, bass, even a big crappie. I don't even like to eat fish, I just catch and release them unharmed.

My favorite lures (though I use many) are the plastic worm or a live 2-inch minnow with bobber.

I am not a bad fisherman, though the fish certainly get a laugh when they see me coming. Please help! I'm desperate for *good fishing.*

Thank you.

ALAN B. TIGAI
Philadelphia

NO COMPLAINT HERE —

I would like to take this opportunity to thank the Fish Commission for a great job. I have fished in a few of the states bordering Pennsylvania but nothing can compare with the great trout fishing you provide. I have fished many of the streams in the Allegheny National Forest and it's great. Many fishermen complain of the hatchery-bred trout, but I don't see why. By the middle of June the hatchery trout are nearly the same as the native ones. If it weren't for the stockings you do many of our streams would be barren of trout. I know of a few streams, well off the beaten path, that now harbor stream-bred brown trout thanks to your stockings.

ROSS FOWKES
North Huntingdon

SUPER BAIT: MAGGOTS!

Enclosed is my check for another subscription for your fine magazine, *Pennsylvania Angler.* I do not know when my previous subscription expires but I do not want to miss out on anything.

Please write more about the Delaware River. I like it here very much, but to find a good fishing location seems to be a difficult problem.

I have fished in many nice rivers of the world. I have fished in Europe, Siberia, Dzwina and others, S. Russia, Zamberi, Congo, Africa, Esk, Annon, Scotland, Eden, Tweed, England and many more. I never come out empty. The fishing was good if you knew the places where to fish and I was one of the lucky ones to know.

Recently I read an article in your magazine about maggots. I had an argument at work with a couple of guys and they told me it wasn't healthy nor legal to produce and fish with maggots.

I have spent many good years in England and fished many dams, lakes and rivers using maggots as my bait, but not only me — all fishermen. In England, selling maggots is a million dollar business. You can buy them in every sport shop. You buy them by pints, or gallons if you go away for a week or so.

My best catch using maggots was at Annon River hauling in a 12-pound sea trout. It took me one hour and forty five minutes to land it using 1½-pound-test line and #18 size hook with three maggots on. The fish had over 100 yards of somebody's line partly wrapped around it.

Practically all my years of fishing I used maggots. I produced some maggots here. I breed and feed them on fresh liver. On one occasion I fished on one lake with maggots. We had about 300 mixed bag after we released all back to the water. Most of the time the float fishing is best with maggots.

ZYGMUNT KAWCZYNSKI
Rahway, N.J.

"DOWNRIGHT ENJOYMENT"

I read the article by Delano Graff titled, "How Big a Bass Should Be, or What's a Keeper," and was disappointed at the subject and the idea it portrayed.

The "Gung-Ho" trophy-type fishermen that the article seems to defend or portray the character of, is not the person that enjoys fishing in the main. My wife, son, grandson and myself fish Lake Arthur a lot. I am a retired steelworker and purchased a nice bass boat upon retirement in the spring of '77 and I suppose I would be considered a semi-invalid due to a respiratory ailment, but I experience perfect health out on the lake with Grandma, and Erich, my 8-year-old grandson. I just keep taking bluegills off the hook from two favorite fishing companions and enjoy the expression on the faces of both of them in their race to see who catches the most.

I caught a 36-inch musky this past year and released him, and I will catch him again someday when he is a 44-incher and then he'll be a keeper. I causht a few nice bass from 10 to 15 inches and I never keep one under 10 inches, probably to save arguing with a waterways patrolman.

I find most fishermen throw them back if they aren't over 10 inches so you actually already have a 10-inch limit setup. Take a ride on your lakes and streams and observe the fishermen. You will observe most of the people fishing are not the he-man, sportsman type, expensive equipment-type of fisherman, but it is a family affair.

I have watched my wife in the early morning, watching deer drinking water at the lake before bedding down for the day, and noticed a tear in the corner of her eye at the grandeur of a pretty buck and his harem. Just the pure beauty of a natural scene does not rely on the size of the fish for the pleasure of it all. Please leave well enough alone.

Yours for the pleasure of downright family fishing.

MR. & MRS. PHILIP HERGENROTHER
Ellwood City

MEALS from the CREEL

by Arthur J. Michaels

Trout Sandwiches, for (the season) Openers

"Click...Click...Click..." Does your lunch begin every day with this sound — a can opener removing the top of your usual tuna lunch staple? This trout season, why not wake up your lunches with several different tastes of the season? For dinner, you can try the varied trout recipes in ***Pennsylvania Anglers' Cookbook*** (available from the Pennsylvania Fish Commission for $2.50, P.O. Box 1673, Harrisburg, Pa. 17120. Checks or money orders, please.). And with your leftover cooked trout, here are a few trout sandwiches you can prepare to fill your lunch hours with the sights, sounds, and pleasures of your favorite trout stream.

TROUT SANDWICH FILLING I

8 ounces cooked trout fillet, flaked
1 hard-cooked egg, chopped
4 or 5 green olives, chopped
½ teaspoon lemon juice
mayonnaise

In a bowl, blend ingredients lightly with a fork. Add enough mayonnaise to make a spreadable paste. Use on your favorite bread.

TROUT SANDWICH FILLING II

8 ounces cooked trout fillet, flaked
½ teaspoon lemon juice
2 tablespoons minced celery
1 tablespoon chili sauce
mayonnaise
salt and pepper to taste

In a bowl, blend ingredients lightly. Add enough mayonnaise to make a spreadable paste.

TROUT FILLING III

8 ounces cooked trout fillet, flaked
2 egg yolks, hard-cooked
1 tablespoon lemon juice
1 tablespoon melted butter
salt and pepper to taste

Blend ingredients lightly in a bowl. For extra flavor, moisten the mixture with your favorite salad dressing.

TROUT-GUACAMOLE SANDWICH SPREAD

4 ounces cooked trout fillet, flaked
1 medium ripe avocado
1 small tomato, chopped
2 tablespoons finely chopped onion
2 tablespoons chopped green pepper
1 clove minced garlic
dash hot pepper sauce
salt to taste

Mash the avocado in a small bowl until smooth, and add the other ingredients, blending lightly. Serves about four.

TROUT TACO FILLING

8 ounces cooked trout fillet, flaked
1 tablespoon oil
2 small chopped tomatoes
1 tablespoon chopped green pepper
1 tablespoon chopped onion
4 ounces shredded Muenster cheese
¼ teaspoon chili powder
dash ground cumin

In a small saucepan, cook the onions, pepper, and tomatoes in oil until soft. Slowly add flaked trout and other ingredients. Spoon hot filling into taco shells and garnish with tomato slices and shredded lettuce or spinach. Serves about four.

TROUT-ZUCCHINI FILLING

8 ounces cooked trout fillet, flaked
4 ounces cream cheese
½ cup chopped zucchini
4 slices black olives
1 tablespoon chopped walnuts
dash basil

In a small bowl, blend all ingredients lightly. Serves three or four.

TROUT POCKET BREAD SANDWICHES

1 pound cooked trout fillet in small pieces, not flaked
1 small chopped cucumber
1 medium chopped tomato
2 large pita bread rounds
1 small sliced onion
1 cup shredded lettuce (or spinach)
½ teaspoon oregano
½ teaspoon basil
3 tablespoons olive oil
1 tablespoon red wine vinegar
salt to taste

Slice the pita bread in half crosswise, and set aside. Combine cucumber, tomato, 2 tablespoons olive oil, vinegar, basil, and oregano in a bowl. Chill in refrigerator for several hours. In a medium fry pan, cook the onion slices in remaining tablespoon of oil until the onions soften. Add pieces of trout fillet for several minutes to warm. Season with salt to taste. Divide trout and onions into four equal portions. In each bread round half, put one trout and onions portion. Mix the chilled mixture with shredded lettuce, and add it to each bread round half, over each warm trout and onions portion. Serves four.

TROUT CLUB SANDWICHES

8 ounces cooked trout fillet, flaked
12 slices white bread, lightly toasted
2 tablespoons softened butter
2 tablespoons mayonnaise
1 teaspoon lemon juice
½ head lettuce (or equal amount of leaf spinach)
1 medium cucumber, peeled and sliced
4 hard-cooked eggs
2 medium tomatoes, sliced
salt to taste

In a small bowl, mix the trout, mayonnaise, lemon juice, and salt. Butter each slice of toasted bread on



ne side only. Spread the trout filling n four slices of bread, topped with ettuce and cucumber. Cover with the econd slice of toast, and add slices of omato and hard-cooked egg. Top with third slice of toast. Hold the club andwich together with toothpicks and ut it in quarters. Serves four.

TROUT AND BEANS SANDWICH

8 ounces cooked trout fillet, flaked
1 pound (one can) red kidney beans
4 tablespoons mayonnaise
3 teaspoons chili powder
½ head lettuce
2 tablespoons minced onion
2 medium tomatoes, sliced
6 large rolls or seeded buns
salt to taste

In a small bowl, lightly blend the rout, mayonnaise, and one and a half easpoons chili powder. Salt to taste nd set aside. Drain the kidney beans nd mash lightly. Add minced onion, emaining mayonnaise, and chili powder. Blend lightly and set aside. Cut rolls in half and butter both halves lightly. Add on each bottom slice lettuce, trout mixture, sliced tomato, and bean mixture. Serve chilled. Serves six.

TROUT SPROUT SANDWICH

8 ounces cooked trout fillet, flaked
2 tablespoons mayonnaise
2 tablespoons parsley
1 small dill pickle, chopped
2 tablespoons green pepper
2 tablespoons onion, finely chopped
2 hard-cooked eggs
1 cup bean sprouts
2 soft sandwich rolls

In a small bowl, mix the trout, mayonnaise, parsley, pickle, pepper, and onion. Chill in refrigerator for several hours. Split and butter the rolls. Spread a half-cup bean sprouts over each roll, and add chilled trout mixture. Top with slices of hard-cooked eggs. Serves two.

TROUT AND MUSHROOM SANDWICH

4 ounces cooked trout fillet, flaked
4 slices rye bread
2 slices Swiss Cheese
4 lettuce leaves
butter
4 ounces fresh mushrooms
3 tablespoons olive oil
1 tablespoon lemon juice
¼ teaspoon oregano leaves
2 tablespoons celery, finely chopped
garlic salt to taste

Slice the mushrooms through the stem. In a small bowl, lightly mix the mushrooms with all following ingredients. Cover and refrigerate overnight, but stir occasionally for several hours. Butter (to taste) two slices rye bread. Layer on each two lettuce leaves and one slice cheese. Spoon on flaked trout. Drain the chilled mushroom mixture and spoon it on each sandwich. Top with remaining rye slices. Serves two.

Those Crazy People . . . Fishermen



Part III – Of Habits, Habitats & Housekeeping

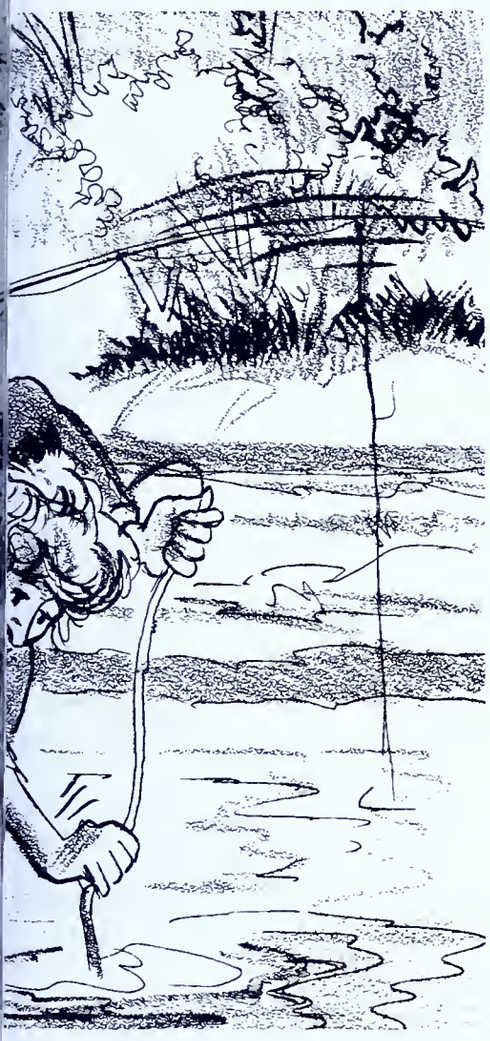
It is said that two women can't live in the same house without driving one another up the walls. Well, two fishermen can get on quite nicely together. Three's a crowd, though. It's like three-handed pinochle: two are always on the same side, and the third has to fight like mad to stay out of the hole.

The typical housekeeping arrangement on a twelve or fourteen foot aluminum boat is the following (I ignore the sixteen foot boat because I've never seen a sixteen foot boat with more than one man in it): In the rearmost seat, facing out over the stern and commanding the best possible fishing space, is the owner of the boat—usually the father if it's a family outing—who more often than not is of such physical mass that all the tackle aboard, including the bait box and the cooler, comes sliding his way and arranges itself neatly behind him where he can readily get at it.

In the middle seat, often times straddling the splintered plank in a futile effort to get at the two square yards of fishing space available to him (one on the port side, and one to starboard), is the oldest member of the group — either the grandfather, the retired neighbor, or the old codger whose only reason for coming was the assurance of a full day of complete and total relaxation — who is in the unique position of having to cast overhand across the widest part of the boat, and who usually snags a tree or a lifejacket or something else behind him which he can't see. He is the man nearest the oarlocks, and there is no place for him to put his fishing rod between stops. If he sets it against the gunwale, it interferes with his oarsmanship; and he can't hold it, for then he wouldn't have any hands free with which to row. So he normally hands it to the man in the stern, who normally forgets to give it back when the next fishing stop is made, and he normally catches very few fish. Last but not least, he is entrusted with the landing net, which he never gets to use on his own fish because he can't cast far enough from the boat to catch anything bigger than a large bluegill. You might think that this middleman is the odd one of the trio who has things rough. No way!

In the front of the boat, looking out over the upraised bow, sits the youngest member of the party — the son, most often, or in the case of coeducational expeditions, the boat owner's wife or girlfriend, or the middleman's niece — who has control of the most vital of the vessel's fittings, the anchor.

y E. W. Fisher



And by natural law, the smaller the occupant of the front seat, the heavier the anchor.

Although this man (or woman, as the case may be) has the second best fishing area in the boat and can cast sidearm, overhand or backhand to either the left, right or straight ahead, he (or she) logs very little actual time in the water because of the frequent utterance of "*Hawlanker! I'm hung-up!*" from those further aft. Without fail, this member of the group is soaking wet from swinging the weed-encrusted, dripping anchor aboard, and has raw, rope-burned hands and a bruise on each instep from misjudging the positions of the floor and feet when lowering the anchor to the bottom of the boat between fishing stops. This woman (or man) is always the subject of the aforementioned two-against-one sarcasm and put-downs, and she (or he) has to fish harder and work harder than anyone else in the boat to make good. But despite all these drawbacks and inadequacies, this angler is the first to shore at lunchtime and the last to go down when the vessel takes water.

Contrary to popular belief and many textbooks on the subject, fishermen are not always found in a boat. Many times they nest beneath the trees on the shore, unintelligent as that may be, and spend hours and hours trying to solve the problem of how to get their bait out where there's at least eighteen inches of water without snagging the entire forested hundred acres behind them. Many times they wade out into the water until it's up to their blankety-blank (and sometimes past their blankety-blank and down the inside of their waders, which is not a comfortable place for water to be) and fish from there. In fact, fishermen are not always found where there's water.

Be wary of small-town post offices and quaint little beaneries with names that have something to do with trees — like "*The Walnut Room*" or "*The Knotty Pine*" — that sit on the corner of First and Water Streets or next to the town hotel: while the food is always delicious (fishermen have unusually good tastes in food), such places are always teeming with the creatures. Avoid also the desolate, remotely situated filling stations and auto parts dealers — the former if they have a sign at the roadside which says "Live Bait," and the latter if they also stock "Outboard Parts and Crawlers". Sure as the place looks deserted (and deserted is a mild adjective, for some of these outfits are real fossils), there will be a fisherman or two behind those dusty, termite-eaten doors. And never (this is the coup de coup), *never* go near a supermarket or general store that advertises "Potato Salad"; if you forget everything else I've warned you about, remember this one. If there is a sure nonmarine habitat for the fisherman, it's the store that sells potato salad — make a wide detour (more on that potato salad next month).

As far as habits go, fishermen have all the common ones that normal people have as well: some smoke, some drink, some paint walls and mow grass. But there are a few habits that are peculiar to the fisherman alone. For example, no one else stays up to see the weather report on the eleven o'clock news, sees that it's going to rain cats and dogs and next day, but gets up at four the next morning and packs the car anyway. No one else subjects himself to so much discomfort as the fisherman who, upon getting up at four, tiptoes around on the icy linoleum in his stocking feet, writes a travel itinerary in total darkness, eats dry bread with no butter or apple butter or anything from the refrigerator, and goes down the cellar stairs on his hands and knees, all to keep from making any sort of sound that might waken his wife, only to start the engine in his old jalopy and have the fan belt squeal like a stuck pig and split the early morning silence wide open.

When fishermen get dressed, without fail, they put twelve layers of everything on top of their thermal underwear. That's not too bad, considering the fact that at four in the morning it can be mighty chilly outside, even in the middle of August. But at about ten-fifteen, in the middle of August, the chill tends to burn away. By ten-thirty, the first layer has come off. By ten-forty-five, the second is getting unbuttoned; by eleven, the third, and so on. The problem is, when the fisherman walked a mile and a half *down* the side of the hill to start fishing, he was *wearing* his twelve layers. When it's time to go back *up*, he's got to *carry* everything. The law of conservation of mass notwithstanding, there is a difference between the two.

And then, as all normal people have at least one really nasty habit, fishermen have a handful of habits that far outweigh their lesser ones:

"Hey, Joe!"

"Yeah?"

"What'd you do with the coffee? I can't find it."

"Aw, @#$%! I left it on the kitchen table!"

And the clincher, the one that has split up more friendships than all the world's Civil Wars rolled up into one:

"Whew! I bet we hiked three miles from that lake."

"Yeah . . . it's good to be back at the car, ain't it."

"You bet. You got the keys?"

"Do I have the keys? I don't have the blankety-blank keys! I thought you had the blankety-blank keys!"

"Me? Aw, @#$%! It's your car!"

I'll tell you, I've often wondered how fishermen live to the ripe old ages that they do!

Fishing the Dry Fly . . . in April

by A. G. Eastby



This April angler found a small Blue Quill dry fly to be productive.

Trout fishermen are a contentious lot. Indeed, they thrive on controversy. They can debate the merits of various rods and reels or of different types of lines for hours on end. Discussions about which stream is best can last all night. Voices are often raised when the argument is over matters such as the proper shade of blue dun hackle called for in a particular fly pattern. No one knows how many friendships have been shattered in squabbles over just how big the biggest trout caught during the season was. There have even been disputes about the kind of knot that should be used to attach line and leader.

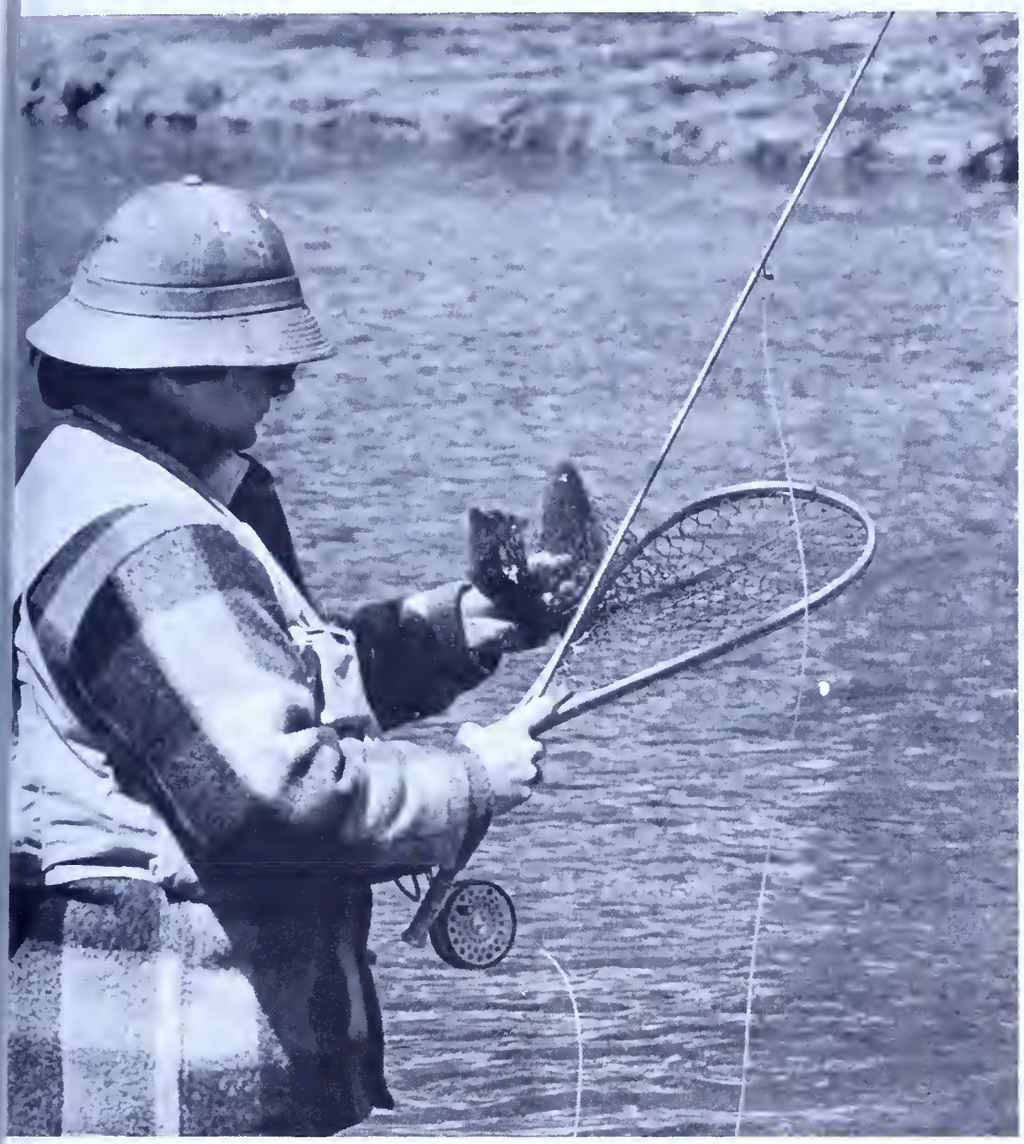
It often seems that there is little common ground between fly fishers. Yet there is one point of agreement among most trout anglers: the belief that a dry fly is next to useless during the opening weeks of the trout fishing season may well be the most widely held proposition.

Few fly rodders would give up their streamers, wet flies, or nymphs to try a floating fly during April. Fewer still would hesitate to form ranks with bitter foes to combat so absurd a notion as using a dry fly to catch an early season trout. After all, both angling tradition and common sense teach that a dry fly is only effective when the fish begin to orient themselves toward surface food. And the rawest novice can tell you that won't happen until the middle of May.

Yet, as is often the case, conventional angling wisdom is wrong. In this instance, not merely slightly wrong, but totally, absolutely, abysmally wrong. So wrong, in fact, that fly rodders have been blind to opportunities for excellent dry fly fishing, in all likelihood the best opportunities our heavily pounded streams can offer.

The simple fact is there is ample early season dry fly angling available to almost everyone. There are hatches — good ones at that — and rising trout — more trout than the angler will probably see again during the

It was a Brown/Olive Sedge that brought this spritely brown trout to net.



season in almost every stream, if you know *where* and *when* to look for them. That is the key. Knowledge about insects and trout and the streams they inhabit is vital if the angler wants to see an early season trout breaking the current to intercept a dry fly.

Before condemning talk about April hatches and April dry flies as utter insanity, pause for a moment and consider for how many years the "hidden hatches," the "caenis" or "trico" emergences of miniscule mayflies, went undiscovered. Now that anglers know about them, it is incredible that these events went unnoticed. But you can't expect to see something when you don't bother to look. Only recently have anglers taken the trouble to study summer streams during the morning hours when these tiny insects are about. Clearly then it is not impossible for events of major importance to trout (and therefore to trout fishers) to escape attention of all save the most observant. It's a matter of knowing what to look for and when to look for it.

Emergences of aquatic insects, that is to say, "hatches," are governed by factors such as water temperature, water color, and water level. An understanding of the interactions of these factors and their impact on the life cycles of aquatic insects provides the fly fisher with guidance as to where and when to expect hatches.

Few anglers are aware of the role water temperature plays in trout fishing. It is widely accepted that the best water temperature for fly fishing is between 55°F and 65°F, since in that range trout and trout stream insects are most active. But it must be kept in mind that trout will feed in water as cold as 33°F. They will not display much appetite, but they will eat. Then, too, some species of mayflies, caddis flies, and stone flies are active at low temperatures. As with trout, insects are not as frisky when the water is very cold as when it hovers between 55°F and 65°F. But low water temperature by itself is not enough to stop certain species of insects from leaving the security of their underwater homes and venturing forth to mate and then die.

It should be kept in mind that streams have what scientists call a "temperature profile," a pattern of daily fluctuations in temperature. The low usually occurs at dawn or shortly thereafter and is followed by a gradual rise until midday when the temperature starts to climb sharply. The peak temperature occurs in the middle or late afternoon, between two o'clock and five o'clock. Then the temperature begins to drop and continues its downward trend through the night. Before the angler can begin to discern a correlation between water temperature and insect activity on the stream he or she fishes, it is necessary to take literally scores (or better yet, hundreds) of temperature readings, to keep careful records, and to spend a couple of long winter nights studying the results. This information combined with observations of insects will help the angler learn when to expect hatches.

It is only through this admittedly bothersome and, at times, tedious fact-gathering process that a real understanding of the role of temperature can be gained. Although the patterns of temperature and insect activity for each stream will be somewhat different, there are a few general guidelines that can help. When the water is about 40°F, midges, some caddis flies (*Chimarra* species), and certain stone flies (such as the *Capnia* species) can be expected. When the temperature reaches 45°F, small mayflies (*Baetis* and *Paraleptophlebia* species), olive bodied caddis flies (such as a number of *Brachycentrus* species), and a variety of stone flies (*Isoperla* and *Nemoura* species) will begin emerging. As the temperature passes the 50°F mark and climbs toward 55°F it's time for the Hendricksons (*Ephemerella subvaria*).

Water temperature is only one of the factors governing insect hatches. The level and color of the water also have roles to play. When water levels rise, particularly if the increase in flow

is associated with discoloration, insects are likely to be affected. As a rule, however, the hatch will merely be postponed by high water. For example, the Hendricksons can be expected to be on the water beginning about one-thirty or two o'clock in the afternoon. Abnormally high water will usually mean a very late afternoon or early evening hatch (between four thirty and six thirty).

If the stream is in spate, with chocolate colored water lapping over the banks, there is no point in threading line through guide, even if it is a sinking line and the intention is to dredge the bottom with heavily weighted nymphs. High, turbid water will stop a hatch before it starts. It will also force trout to divert attention and energy from searching for food to seeking shelter. The worst enemy of the early season angler, then, is very high, discolored water.

A number of other factors influence early season hatches. Air temperature by itself is not important. But extended periods of unusually cold weather can contribute to very low water temperatures. Precipitation has little impact as long as it isn't heavy enough to raise or discolor the stream. Heavy overcast, particularly if it lasts several days, will play havoc with water temperatures and may adversely affect the duration and intensity of hatches. One point to keep in mind is that no matter how inclement the weather becomes, once there has been a touch of spring in mountain valleys, trout stream insects will begin preparations for emergence. There may be some minor setbacks, but barring a cataclysm — a heavy flood or perhaps a freak blizzard — the mayflies, caddis, and stone flies will undergo their metamorphoses.

In sum, the fly rodder has every right to expect early season hatches whenever and wherever the water levels are low to moderate, the water is relatively clear, and water temperatures are following a "normal" pattern. But what kind of insects emerge during the early weeks of the season?

To most fly rodders, hatches mean mayflies. While there may be few things in life as pleasant as fishing during a fine emergence of *Ephemeras* or *Stenonemas*, on many streams the *Ephemeropteras* are sadly depleted. Their place has been taken by the hardier caddis (*Trichopteras*) and the more tolerant members of the order *Plecoptera* (stone flies). Luckily for the early season angler, among the mayflies that have resisted the encroachments of twentieth century civilization are two species that provide consistent April action: *Ephemerella subvaria* and *Paraleptophlebia adoptiva*.

Sharing similar habitats — gravelly runs, brisky flowing riffles, and well-aerated pools — the *subvarias* and *adoptivas* are afternoon emergers, coming off the streams between one o'clock and four o'clock. The spinners, or mature insects, will return to the stream to lay their eggs either in midmorning or during the late afternoon. Once these mayflies make their yearly debut, they will be on the water for two to four weeks depending upon the density of the population in a given creek or river.

There is no problem identifying or imitating the *Paraleptophlebia* duns. Once seen there is no mistaking these smoky winged, mahogany bodied little mayflies. *Ephemerella subvaria,* on the other hand, is every inch the problem child of the early season stream. There is so much variation in color and size that a *subvaria* dun from one stream will often bear little resemblance to a specimen recovered from a creek in a neighboring watershed. Two solutions to the problems raised by this are possible. The angler can either tie a "compromise" pattern and hope for the best or else the fly fisher must capture insects, examine them, and use body material blended to duplicate the color of the naturals.

The caddis flies and stone flies of April are easily recognized. At rest these insects fold their wings down their backs, parallel to their bodies. In flight their movements are more erratic than those of mayflies. Furthermore, when airborne their wings appear to project out from the sides of their bodies.

The first caddis of the season will be either the dark, almost black *Chimarras* or one of the olive bodied *Brachycentrus* species. These insects are widely distributed and are found in all types of water from staid pools through churning rapids. The caddis hatches are never as concentrated as mayfly emergences, but by coming off in fits and starts for hours they will provide sustained surface feeding by the trout.

The early season stone flies fall into three broad categories. The small black *Capnias* are easily mistaken for *Chimarra* caddis and as far as the dry fly fisher is concerned there is no real difference between them. The reddish brown bodied *Taeniopteryx* species are often observed flitting about the margins of mountain creeks weeks before the season opens. The distinctive brown bodied stone flies (primarily from the genera *Isoperla* and *Nemoura*) are in evidence later in the spring, usually sometime after opening day.

Stone flies, caddis flies, and mayflies, will all be active during the early weeks of the trout season. The exact timing of their emergences will vary considerably, depending, as they do, upon the stream and weather and water conditions. It is only through experience that the angler can learn precisely which insects are going to emerge and when they'll be about on the rivers and creeks he or she fishes. That sounds like a tall order. It really isn't. Devoting a few minutes of each fishing day to checking water temperatures and noting weather and water conditions will enable the angler to predict hatches and be prepared for them.

The fly fisher needs more than this, however. Effective flies are also called for. Some traditional patterns (the Hendrickson, the Red Quill, and the Blue Quill come to mind) will serve to simulate the mayflies. Many newer patterns, flies with sparse hackle and delicate wings, are far more imitative and therefore better. Successfully duplicating stone flies and caddis flies is a more challenging task. But with the aid of newly developed techniques and by utilizing a variety of materials telling patterns can be fashioned. A selection of flies designed specifically for early season fishing complements an angler's store of stream lore and will enable the fly rodder to face early season hatches with confidence.

When next a group of fishing companions gathers in a congenial taproom or around a crackling campfire, casually mention the fact that you scored heavily during a *Brachycentrus* or *Capnia* hatch one early season morning. Watch their faces as you tell them where, when, and how you took the first "dry fly trout" of the season. It's almost as much fun as catching a trout on a dry fly in April.



Left to right, above: Subvaria Dun, Subvaria Spinner, Adopted Dun & Adopted Spinner

EARLY SEASON MAYFLY IMITATIONS

Subvaria Dun (imitates the famous "Hendrickson," *Ephemerella subvaria*).

Hook: Mustad #94833 or equivalent, size twelve through sixteen.
Thread: Olive, 6/0, prewaxed.
Tails: Bronze dun hackle fibers.
Hackle: Bronze dun or bronze dun and olive mixed, tied double "V," half-palmer, or parachute fashion.
Wings: Dark dun polypropylene "wing material" (yarn), dark dun dyed turkey breast feather fibers, or dark dun hen neck hackle feathers cut to shape.
Body: Fur or polypropylene dubbing — two parts "pink fox" or light tan, one part medium olive, one part medium yellow.

Subvaria Spinner

Hook: Mustad #94833, sizes twelve through sixteen.
Thread: Brown, 6/0, prewaxed.
Tails: Light dun hackle fibers
Wings: Light dun hackle or light dun and light ginger hackle mixed, tied "spent wing" style.
Body: Fur or polypropylene — four parts mahogany, one part dark brown.

Adopted Dun (imitates the immature or subimago stage of *Paraleptophlebia adoptiva* and other common *Paraleptophlebia* species).

Hook: Mustad #94833, sizes sixteen through eighteen.
Thread: Brown, 6/0, prewaxed.
Tails: Dark ginger hackle fibers.
Hackle: Dark ginger tied double "V," half-palmer, or parachute fashion.
Wings: Dark dun polypropylene "wing material," dark dun dyed turkey breast feather fibers, or dark dun hen neck hackle feathers cut to shape.
Body: Fur or polypropylene dubbing — four parts mahogany, one part dark brown, one part medium olive.

Adopted Spinner (a simulation of the fully mature or imago stage of the *Paraleptophlebia* species)

Hook: Mustad #94833, sizes sixteen and eighteen.
Thread: Brown, 6/0, prewaxed.
Tails: Light dun hackle fibers.
Wings: Light dun hackle or light dun and ginger variant hackles mixed tied "spent wing" fashion.
Body: Same as dun.

(MORE . . . next two pages)

THE CASE OF THE QUILL GORDON

Most anglers, if they think about it at all, associate the classic Quill Gordon and the mayfly it purports to imitate, *Epeorus pleuralis,* with early season trout fishing. These little mayflies, however, are nearing extinction. They need pure, cold, oxygen rich water and there is only a handful of streams that meet their stringent habitat requirements.

For the angler lucky enough to be able to fish unspoiled rivers, a first rate imitation of *Epeorus pleuralis* is often useful. The traditional Quill Gordon, however, does not satisfy the taste of discriminating trout. The following pattern is superior.

Plural Dun

Hook: Mustad #94833 or equivalent, sizes twelve and fourteen.
Thread: Brown, 6/0, prewaxed.
Tails: Bronze dun hackle fibers.
Hackle: Bronze dun.
Wings: Medium dun polypropylene "wing material," medium dun dyed turkey breast feather fibers, medium dun hen neck hackle feathers cut to shape.
Body: Fur or polypropylene dubbing — two parts medium brown, two parts medium grey, one part yellow, and one part medium olive.



Above — Plural Dun

The Blue Winged Olive Dun

The tiny blue winged, olive bodied mayflies of the genus *Baetis* are occasionally encountered by the early season angler on low altitude streams, on slower stretches of mountain creeks, or on streams fed heavily by springs. They take to the air a week or ten days before the *subvaria* or *adoptiva* duns are ready to emerge. Peak activity is in the late morning (around eleven o'clock) and again in the mid-afternoon (about three o'clock).

The following dainty little pattern works well during a *Baetis* hatch.

Baited Dun

Hook: Mustad #94833, sizes eighteen through twenty-two.
Thread: Olive, 6/0, prewaxed.
Tails: Medium dun hackle fibers.
Hackle: Olive or olive and medium dun mixed, tied conventional, parachute or palmer style.
Wings: Medium dun polypropylene "wing material," medium dun dyed turkey breast feather fibers, or medium dun hen neck hackle fibers.
Body: Fur or polypropylene dubbing — two parts medium olive and one part medium brown.

Below — Baited Dun



Left to right — Early Black Downwing, Brown/Olive Sedge, Brown Stone Fly & Red Stone Fly



CADDIS COUNTERFEITS AND STONE FLY SIMULATIONS

Early Black Downwing (imitates both *Capnia* stone flies and *Chimarra* caddis).

Hook: Mustad #94833 or equivalent, sizes sixteen through twenty.
Thread: Black, 6/0, prewaxed.
Body: Fur or polypropylene dubbing — four parts black, one part grey.
Wings: Very dark (slate) duck wing quill segments tied downwing or very dark dun hackle tips tied "delta wing" fashion.
Hackle: Very dark dun.

Brown/Olive Sedge (to match *Brachycentrus* caddis hatches).

Hook: Mustad #94833, sizes fourteen through eighteen.
Thread: Olive, 6/0, prewaxed.
Body: Fur or polypropylene dubbing — three parts medium olive, one part dark olive, and one part grey.
Wings: Dark ginger variant hackle tips tied "delta wing" style or chipmunk tail hair.
Hackle: Dark ginger and olive mixed or dark ginger variant.

Brown Stone Fly (to deal with emergences of *Isoperla* and *Nemoura* species).

Hook: Mustad #94833, sizes fourteen through eighteen.
Thread: Brown, 6/0, prewaxed.
Body: Fur or polypropylene dubbing — two parts medium or light brown, one part mahogany.
Wings: Dark ginger hackle tips tied "delta wing" style or brown dyed deer body hair.
Hackle: Dark ginger.

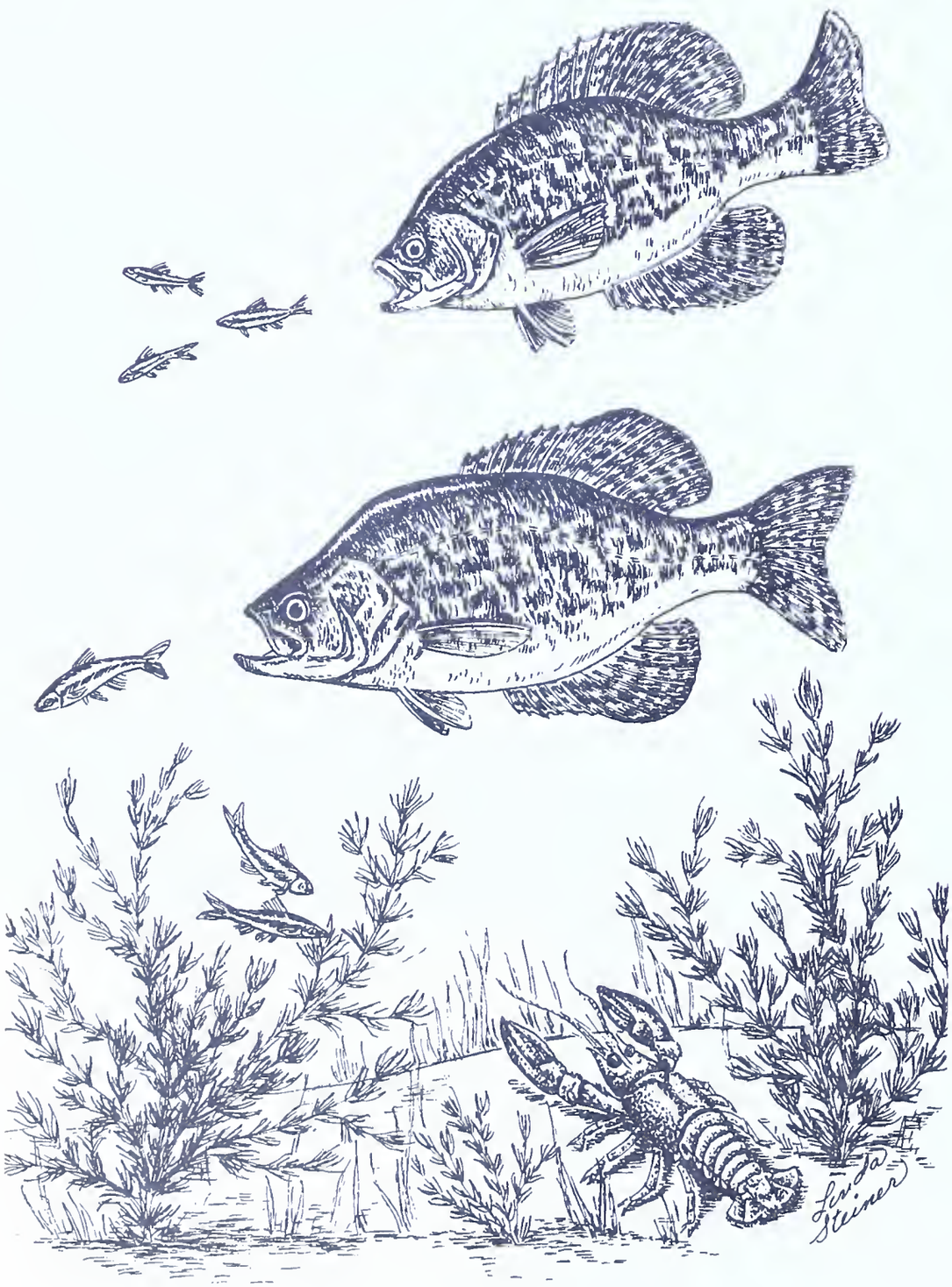
Red Stone Fly (an imitation of the adult state of the genus *Taeniopteryx*).

Hook: Mustad #94833, sizes twelve through eighteen.
Thread: Brown, 6/0, prewaxed.
Body: Fur or polypropylene dubbing — mahogany.
Wings: Dark ginger variant hackle tips tied "delta wing" style or very dark brown mottled turkey feather segment.
Hackle: Dark ginger, palmer style, trimmed on top and bottom.

Try Pinchot Lake . . .

it's a springtime crappie hot spot!

by Kermit G. Henning



The sun was just starting to show over the mountains as I eased my johnboat away from shore. Ten feet out I switched on the electric motor and let it take over. I aimed the boat out of the small bay, under the bridge and out toward the 340 acres of open water in Pinchot State Park Lake, in York County, Pennsylvania.

As the boat moved silently around a point, I first heard the honking of the migrating geese that had spent the night resting on the lake. The geese, too, were just rising and readying themselves for the next leg of their journey northward. Thousands of geese use Pinchot every year as a stopover and this day I must have hit the bulk of them. As far down the lake as I could see were geese.

I shut off the motor and sat still. I knew that if I waited for a while that I would be treated to a show that not too many people ever see. I was fully rewarded. For the next half hour the honkers noisily gathered in groups, circled the lake to make sure everyone was ready and headed north.

I sat motionless the entire time watching spellbound. When the last of the geese were on their way Mother Nature showed me her encore. A large flock of swans came running across the water trying to get airborne, rose majestically and headed off behind the geese whose calls were still audible.

I had completely forgotten all about the crappies I came to catch. As I came to my senses, I switched the motor on again and headed for a favorite cove where I was to make my first attempt to fill the ice chest with nice crappies.

I rigged one spinning rod with a small minnow and bobber and on the second rod I tied a small lead jig. It didn't take long to find action. I never did get to use the two rods. The crappies were cooperating so much that the minnows had barely hit the water when the bobber disappeared. This just must have been my day. I nearly filled the ice chest and used up all the minnows and it still wasn't nine o'clock.

This lake is so choked with crappies that catching a boatful is not only easy but it is actually good for the lake. To say that crappies have done well in Pinchot is the understatement of all time.

Crappies were first stocked in Pinchot in 1961. Only 400 fish were planted at that time and no additional stockings have been made since. The current Pennsylvania state record crappie was taken from this lake in 1971 — an 18¾ inch, 3 lb. 4 oz. bruiser. Today, however, you are hard-pressed to catch many over ten inches. There are just too many fish and not enough fishermen. Whenever I catch

rappies in Pinchot I always keep hem. It's not that I'm such a fish hog. t's just that the lake needs to be hinned out and the only way to do hat is to catch 'em and keep 'em. And esides, they're so darn good to eat hat it's a shame to put them back.

Crappies are not the only fish to be aught at Pinchot, however. Since the ake was flooded in 1960, hundreds of housands of warmwater fish have een stocked throughout the lake.

In all, there are ten species to be aught — three of which were never tocked but were native to Beaver Creek, Pinchot's only source of water vhich enters at Rossville.

Construction of the 2250-acre Gifford Pinchot State Park was begun in May of 1958. The area which was to e the lake was well cleared of all imber and the few buildings and the ates of the dam were closed in November of 1959. The following Spring the first fish were stocked and he lake was full in 1961. The water evel has remained constant except for major drawdown in 1963 for construction of the park's new sewer nd water facilities. The drawdown ad no effect on the fish population, owever. The water reaches a maximum depth of fifty feet at the breast of he dam.

The 340 site camping facilities were constructed in 1969 and are open from April to October. Pinchot also offers picnicking, hiking on eight different nature trails, 3200 feet of public beach, canoe and rowboat rentals, as well as the excellent fishing. As mentioned earlier, three species of fish n Pinchot were native to the source. Sunfish, rock bass and pickerel were never stocked by the Pennsylvania Fish Commission. As might be expected, the sunfish have done quite well. The rock bass and pickerel, however, are rarely taken by fishermen.

The other fish to be caught are bass (both smallmouth and largemouth were stocked although the largemouth far outnumber their shortjawed cousins), white catfish, muskellunge, walleyes, northern pike, and the aforementioned crappies.

An initial stocking of 6000 one- to two-inch fathead minnows was also made in 1960 as forage fish.

Largemouth bass fishing has really come into its own at Pinchot in recent years. Large initial stockings have provided a base for successful natural reproduction; so successful, in fact, that no subsequent stockings have been made since 1971. The largest single stocking of largemouths was made in 1960 with 27,500 fingerlings planted along with an additional 100 fish ranging in size from fourteen to eighteen inches.

Smallmouth bass totalling 7000 were stocked only in 1961 and 1962 and have not enjoyed the tremendous success of the largemouth for several reasons. First of all, the lake bottom does not favor the smallmouth. Rather than the rocky, gravel contour that smallmouth prefer, the muddy lake bottom is covered with vegetation and brush more conducive to the largemouth. Another factor is water depth. Although the lake does reach fifty feet at the dam, the majority of the lake's water is much more shallow.

The muskellunge has not shown the success at Pinchot that was perhaps hoped for by the Fish Commission. Muskies have been stocked in thirteen of the lake's sixteen years in numbers totalling nearly 15,000. This total includes 1700 tiger muskies introduced for the first time in 1974. Although nothing over ten inches was stocked, the great numbers of forage fish should have resulted in many more catches of large fish.

To be sure, there have been some giants taken from this water but not enough for it to be considered a top musky producer.

The main emphasis in the stocking of Pinchot has been with the walleye and northern pike. Close to 400,000 fish of these two species have been introduced and have shown tremendous growth (192,562 walleyes, 187,130 northerns).

Walleyes were first stocked in 1960, even before the lake was full, with 150,000 fry and 5000 fingerlings. Due to the tremendous success of these early fish, none were stocked between 1966 and 1976 except for 600 adult fish between the sizes of fifteen and twenty-three inches. In 1976 an additional 10,000 fingerlings were added. Many excellent catches of these tasty fish have been taken from this lake. The secret is to find them. There are some locals who spend a great deal of time on the lake in search of walleyes and, with the help of pre-1960 contour maps, have consistently taken large fish. Although the fish are plentiful, very few are caught by anglers who do not concentrate on walleyes exclusively.

Northern pike were not introduced until after the drawdown in 1964. At this time the Fish Commission stocked 135,000 fry, 790 fingerlings and fifty adults from sixteen to twenty-four inches in length. The following year an additional 50,000 fry were stocked and since then only 1050 adults were put in. Like most members of the pike family, the northerns can be caught with any number of live baits or lures. I've even taken some shoestring pike with dry flies in water so shallow that they were hardly kept wet.

Pinchot is one of the few places in this part of Pennsylvania to be stocked with white catfish. Only 2010 cats were stocked and are not very abundant. Most cats that are caught are thought to be channel cats because most anglers don't know how to tell the difference. The main difference between them is the tail. The channel cat has a much more deeply forked tail with pointed lobes whereas the white cat has more rounded lobes on its tail. The white is also much smaller than the channel cat, reaching a maximum of twenty-four inches and six pounds.

The black crappies round out the fish picture at Pinchot.

The waters of the lake are also home to other forms of wild and aquatic life. Several species of turtles can be seen sunning themselves on the rocks, including enormous snappers.

The fisherman who is on the lake early in the morning or late in the evening can often see whitetail deer coming to the water to drink and nibble the lush vegetation.

Birdwatchers will find an endless variety of specimens to observe. From the migrating waterfowl to the local population of heron, egrets and bitterns to tiny hummingbirds collecting nectar from hillsides of honeysuckle — any serious birdwatcher can surely add to his lifelist by spending some time at Pinchot.

Family camping, picnicking, swimming, sailing, boating, hiking, nature study, fishing (including excellent ice fishing in season), or just plain relaxing — Pinchot State Park Lake has something for everyone.

(Editor's note: good springtime crappie fishing at Pinchot begins, generally, about the time trout season opens.)



Frank Taylor uses a variable speed drill to speed up the job of sinking screw eyes into his lures.

TAYLOR-MADE LURES – Part I

by Don Shiner

In the town of Berwick resides Frank Taylor, a dedicated angler and former school principal who, upon retirement, has turned his attention to making plug-type fishing lures for northern pike, muskies and walleyes. There are many young fishermen and retirees who would enjoy this creative and challenging activity. For this reason I interviewed Taylor to learn something of his lure-making techniques. What he has to say in Part I of this two-part interview, will prove helpful to many. Lure-making is one way of making boring evenings more productive and making improved catches of gamefish.

Shiner: "Let's begin this interview, Frank, by discussing some of the events that influenced you to make wooden fishing plugs. Exactly when and how did you get started?"

Taylor: "Well, I think it started recently when I was on a trip with friends to Canada. One of my friends at that time whittled a crude sort of plug out of a piece of white pine and tried to get me to do the same. I said that I wasn't interested. Later on in the year he showed me the same crude piece of white pine whittled into a beautiful jointed plug, beautifully painted and looking as if it would really catch fish. It had glass eyes and a wiggle disk in front to give it the proper action, and it was really a nice job. That got me started."

Shiner: "Have you found it a productive and creative outlet for you during retirement?"

Taylor: "Anyone who has retired needs a productive and creative outlet. I am fortunate in that I have about a dozen or so, and I add to them. I added this one and really enjoy it. I found it creative because I could use different ideas and different paintings. I have now made several hundred lures of different types."

Shiner: "What type temperament does it require? Is plug-making for every fisherman?"

Taylor: "Well, there are different types of fishermen. A fly fisherman may not particularly be interested in plug-making, but for the general fisherman who likes to go after the big ones, northerns, bass and muskies . . . he would like very much making plugs."

Shiner: "If someone has a small work bench in the garage or basement, what sort of equipment or tools are necessary to turn out a variety of wooden lures?"

Taylor: "The one basic mechanized

Billets are sawed to length, top right, then cross cuts are made in each end to fit billet in lathe. Lower right: Taylor then begins turning out a plug from his stock of billets.

tool that I think is necessary is a wood lathe. With this you can turn out a lure in four or five minutes whereas it might take an hour or more to whittle out a perfectly symmetrical lure by hand. Beyond that he ought to have sanding equipment. Of course, he should have some hand tools and a reversible, variable speed drill, and cutoff saw or band saw. But some of these tools can be substituted with hand tools."

Shiner: "What kind of wood do you prefer and where do you normally get this material?"

Taylor: "Well, I have not really worked with enough different kinds of wood to give a learned discussion here, but I find white pine is excellent and poplar is very good. These turn easily on the wood lathe, do not split and are easily painted and are highly buoyant. Old 2 x 4 lumber makes good material for lures."

Shiner: "Other than a supply of wood, what hardware items are necessary? Can fishermen make or improvise some or most of this hardware?"

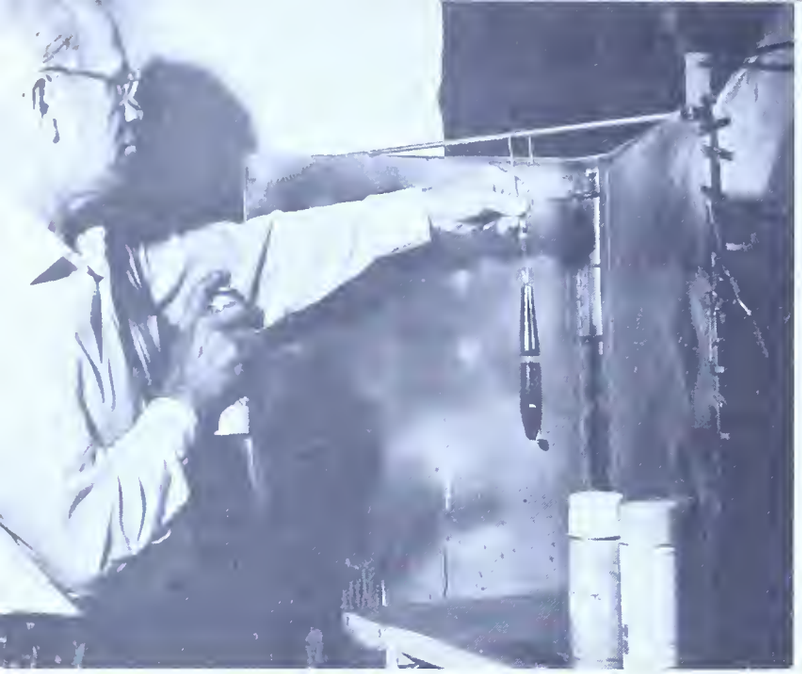
Taylor: "Well, all of the hardware that goes on a plug consists of screw eyes, hooks, and wiggle scoops on the front which give the action. These are the only ones. Now, he must *buy* the screw eyes . . . he has to buy hooks, but, if he cares to, he can *make* the wiggle scoops out of light metal of some kind if he so chooses."

Shiner: "Suppose you have picked up a piece of straight grained wood from the wood pile. What is the first step in turning it into a first class lure?"

Taylor: "Well, the first step, of course, is to prepare it for the wood lathe. That means squaring it on the saw to an inch by inch, or inch and one-quarter by inch and one-quarter, whatever maximum size the plug is going to be. It is then cut to length, plus two inches for holding it in the lathe. At this point you put a cross cut in each end to adapt it to a wood lathe, and you are ready to go."

Shiner: "You mentioned jointed plugs. How do you go about making them jointed?"

Taylor: "Well, you decide where you









want the joint to be and cut it off on the band saw or by hand. Then, to give it the hydrodynamic action that it needs, you must "V" this cut, Now, this is tricky. You can do this with a rasp, you can do it with a fine saw, or if you have any sanding equipment, especially a disk sander, you can taper the sides to the right angle (about 45°) which gives the plug excellent action."

Shiner: "How do you go about painting the wood billet?"

Taylor: "Well, I have found that you come up with very good results with a white enamel paint. I first sand the lures, and then dip them in a sealer such as Zip-guard or other varnish type sealer. After they are dry, I dip them in white enamel. After that is thoroughly dry, you can do any paint experimenting that you want to."

Shiner: "How do you achieve a scale finish or other special effects on lures?"

Taylor: "Well, special effects on lures are gained by using different types of screens or mesh, or plastic cloth, but Herter's, for one company, makes a mesh cloth that simulates a fish scale. This mesh can be used over many, many times. Once you start making lures, you are constantly looking for various things to make different finishes and effects and it is surprising what you can come up with to give these special effects."

Shiner: "What kind of paint setup do you have?"

Taylor: "I am using spray paints. This does not call for any elaborate booth, but perhaps, a two-winged affair, with wings about 18 x 24 inches that you can spray into is best. It should have a rod across the top to hold the lures while you turn and spray them. What it amounts to is a backstop."

Shiner: "Have you any favorite colors for bass, pike and walleyes?"

Taylor: "I have many favorite colors and of course, the bright colors are the ones that I apply. Silver and gold, green, red, blue, white, black and orange are good color choices. Fluorescent orange makes an excellent lure color."

Shiner: "Do you assemble the hardware — screw eyes, hooks, wiggle disks, etc., after the last coat of paint?"



Opposite page, top left: lures are sealed in varnish, then dipped in white enamel. When dry they are sprayed with various colors. Note wing-shaped backdrop for painting. The adjacent photo shows lures in various stages of finishing. Photo, lower left, is a close-up of screw eye assembly. One is fitted into jaws of the drill, its open eye locks into the eye of the screw being inserted into the plug. Screw goes in easily and quickly. Hooks are then fastened to the screw eyes. Photo right: Taylor gives each lure a thorough final inspection.

Taylor: "All of the screws go in after the last coat of paint, with the exception of the screw eye at the tail end. That goes in first and you use that to hold the lure while dipping and spraying and to hang over a line while paint dries. From there on, all hardware stays off until the last coat of paint is applied."

Shiner: "What part of lure-making is the most difficult or challenging?"

Taylor: "None of it is really difficult, but the most challenging is the creation of the various type finishes such as scales or other markings that you want on that lure."

Shiner: "Is making lures a task that you grow tired of after, say an hour's work, or do you find it entertaining for a good part of your free time?"

Taylor: "Making lures is a fantastically interesting hobby, and you don't realize an hour is gone let alone get tired of it after an hour. I've often gone down in my little shop and worked four or five hours and had the best time. Time goes by so quickly that I have had to be called to dinner or some other function, because I enjoy doing it."

Shiner: "Do you find it necessary to "fine tune" each lure to achieve a good action. Do you accomplish this right on the lake while fishing?"

Taylor: "The adjustment of the wiggle scoop and screw eyes at the joint can all be done while you make them, however, you will certainly want to fine tune the lures while on the lake. For this you need a pair of long nose pliers to loosen the joints, bend the wiggle scoops and tighten hooks while testing them."

Shiner: "Has lure-making added more enjoyment to your fishing?"

Taylor: "It certainly has added enjoyment to my fishing. There is great satisfaction in making a lure and catching a fish with it. It is also a great deal of fun showing the lures to your friends and giving them some to try themselves."

Shiner: "Do you view the hobby of making fishing lures as a good pastime for only retirees or is it suitable for any age?"

Taylor: "I think it is an excellent hobby for any age or any sex for that matter. It is a clean sort of activity and challenges you a little bit for creative ideas and it certainly isn't expensive."

Shiner: "Are there any other comments you wish to make before we conclude this interview?"

Taylor: "None other than a comment about production. When you are making lures, I would suggest that you make them in batches of 25 or more. Then when you paint, you do all your spraying of one color so you don't have to constantly be spraying out your spray paint nozzle to clean the can; otherwise, they get clogged up. In other words, use the same color on five or ten lures and then put the paint aside, after you have cleaned the nozzle. That is a matter of saving paint.

"There are many effects you can get cutting templates out of paper and wrapping the paper around the lure before you spray it. In other words you can make bars like that on a tiger (black against orange) or zebra stripes, depending on the various fancy cuts you make in the paper.

"It is important to keep the cloth scale mesh or the paper template very tight against the lure while spraying so you don't have fading out or smearing.

"Let me say again, that it is a wonderful hobby for everyone interested in fishing."

How I caught Pennsylvania's "No. 1" Northern Pike

by Dave Erlanson



For the author, the New Year got off to a flying start with his prize catch: the new State Record Northern Pike. Kinzua's Chappel Fork produced this 46 5/16-incher which weighed 29 pounds 12 ounces!

"Are you sure? Are you positive?" I repeatedly asked Bob Klaiber of Bob's Trading Post, Kane, Pennsylvania, after he had finished measuring the fish. I wanted to be absolutely certain that I had caught the new Pennsylvania **STATE RECORD** for northern pike. Even though the tremendous fish had been hauled from the icy waters of Kinzua Dam 2 hours earlier, I still couldn't believe my eyes. It was just too great to be true!

That day, the first day of 1979, found me rolling out of the sack at 5:20 a.m. and calling my ice fishing partner, John Manno of Ridgway, to tell him I would be down to pick him up in about 40 minutes. Steady rain hit the kitchen window as I prepared breakfast. As I listened to the rain I thought now nice to would be to return to "Dreamland" where the fishing's always good and adverse weather doesn't bother you at all. I really wasn't too enthused about going this day.

At six o'clock I was knocking on John's door. We carried the gear to my pickup and left Ridgway for our 50-minute ride to Kinzua. We were a bit behind schedule as both of us were somewhat exhausted from the previous night's festivities.

Few words broke the silence as we drove on. We were headed for an area we knew contained fish and on one occasion we exchanged dialogue concerning tactics on tip-up placement, etc. Less than a week before in this same area I had on what I believe to be the largest fish I had ever hooked. John had also missed what he believed to be a monster. We felt today had to be "the day" for during the last week we had made 4 trips to the same area and flags were few and far between. Except for several illegal-size northerns and one nice walleye, we had been shut out since the day before Christmas when a nice brown trout, a northern, and several walleyes had set off our flags for their last time. Yet there we were, two "ice fishing fanatics" (as we've been called by our wives on more than one occasion), traveling toward "our" spot, hoping that today would be one of those lucky occasions when flags fly all day!

Though very foggy and rainy, we made good time and parked near the Chappel Bay area of Kinzua Dam around 7:15 a.m. Another 20 minutes should put us at our preferred fishing spot, provided it wasn't already taken by other anglers.

As we left the truck we thought we were the first ones there. But as we continued down the old road we passed 2 four-wheel-drives and wondered if they would have our spot. Ordinarily we could have seen the whole area from where we stood, but it was so foggy and rainy we just had to continue on our way and hope someone hadn't gotten there first.

When we reached the ice John stopped to put on his ice grippers, a handy item for every ice fisherman, for safety as well as comfort. I had none so I began slip-sliding along behind John. We didn't walk long when we heard voices from other fishermen. We stopped at their camp briefly to talk before continuing down the ice.

Within minutes after passing this group of fellows we arrived at our spot. We immediately unloaded our gear and began positioning our tip-ups on the ice. Because it was warm, most of the holes I made from our trip two

days previous were still open so, rather than switch to new locations, I used them. Only one hole needed to be redrilled as a 1-inch layer of ice covered the opening. This was to be the lucky one! The water was approximately 9 to 10 feet deep and the hole was located approximately 15 feet from the shoreline.

I set 3 shoreline tip-ups for pike and musky and 2 in deep water for possible trout or walleye action. For pike I prefer shoreline structure fishing with water depth between 5 to 10 feet. I place my bait, usually a sucker 5" to 5½" in length, about half the distance between the ice and the bottom. I believe this lets more pike see your bait than if it were only a foot or two off the bottom.

Soon we both had our tip-ups set up and lugged our augers, packs, etc., to shore where we set up camp. John made a quick run for firewood as I set up our folding chairs and stove.

We both took a seat and began talking about what a good day it was going to be. After what must have been close to an hour I began kidding John about how we should have tried our luck elsewhere, there being no fish right here! He didn't even get a chance to say that this spot would pay off sooner or later when I looked across the ice at my farthest tip-up and thought I saw the flag waving somewhat mysteriously in the fog.

I got up and took a better look and told John that my flag was up but to stay seated because the larger sucker probably set it off. He said "Nothing doing, I've heard that line before," as we began walking toward the flag. When we arrived I immediately noticed that a considerable amount of line had been pulled off the reel —about 40 to 50 yards at least! It was also pulled against the current. Ironically, I made mention that it must be an awfully strong minnow, still not ready to admit a fish may be on the other end. I slowly removed the tip-up from the hole while holding on to the line. Next, I pulled out about 6 feet of line and gave slack which tightened almost immediately. "John," I said, "I've got something on." The line was then pulled tight by the fish as I felt a tremendous tug. At this point I set the hook and told John, "I've got him . . . get ready!"

I began pulling the 50 lb. test line hand over hand for what must have been almost 5 minutes. I actually started getting tired! Finally, I saw my knot and told John to get ready with the gaff as it felt huge. Five more feet of line and we would find out what our prize was. I kept a steady pull on the line as I slowly brought the fish to the 8" hole.

All of a sudden we saw it. A huge jaw and eye looking right up at us. John and I both jumped and I screamed, "Gaff it quick!" John had no chance as it vanished almost as soon as we saw it. John said, "Take it easy. Let him run if he wants to."

By this time I was shaking so bad I could hardly hold on, but I tried to keep calm and began bringing in line again after he made a second run. When he came close to the hole he veered off quickly and pulled about 30 feet of line off to make his *third* run. I recovered and began bringing in the line, realizing that one mistake might lose for me a fish of a lifetime.

Slowly, steadily, the line came in — easier than before. Then, finally the huge head came to the hole. John lowered his gaff very slowly and gently placed it under the fish's gills. Then with a firm pull pinned the fish to the bottom of the ice.

I screamed to everyone that I had a state record and I needed another gaff quickly. Help came as I noticed three men rushing to us from out of the fog. One of the fellows threw down a gaff which bounced on the slippery surface for more than 100 yards until it came to rest about 20 feet from our location. I quickly retrieved it and placed a firm grip on my trophy. However, we still couldn't get its enormous head through the 8" hole. I then yelled for an auger and a couple more fellows came down and drilled another hole beside its head. We then pulled Pennsylvania's No. 1 northern pike onto the ice while fellow anglers looked on in amazement. John immediately measured it at 46½" in length and I said "I believe that beats any northern ever caught by at least an inch!" It was 9:20 a.m.

I hurriedly pulled the remainder of my tip-ups and headed for Bob's Trading Post, what has come to be an "official" measuring station for that area. It was later measured by Don Parrish, District Waterways Patrolman, McKean County, and Bob Klaiber at 46¼" and weighed in at 29 lb. 2 oz. at the A & P Store in Kane. I also had it weighed and measured at the Stop 4 Restaurant and received a special Kinzua fishing award for the catch.

As we drove to our hometown John said (and I agreed) that someday this record would be broken. We both expressed the hope that the fortunate person who does land it feels the exhilaration and excitement we felt on that day.

One of my lifelong dreams has always been to catch a trophy fish and thanks to persistence, faith and a good friend, God granted me this wish.

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A Fly and a Boy on Opening Day

by Charles R. Gibson

As the icy April waters of Slate Run rushed around the knees of his hip boots, the boy drew his cap-covered head back into the downy warmth of his winter coat. His left hand clutched the cork grip of the tiny six-foot fly rod as the right fingered the line nervously, hoping for a telltale jerk. An occasional glance in my direction or in that of the other two fishermen nearby, were the only noticeable distractions keeping him from his obvious concentration. This was the picture of Ken, my 11-year-old son, anticipating the strike of a trout on opening day last year.

We had arrived late on the stretch of stream we planned to fish, and those who had braved the subfreezing temperatures of the previous night in their campers and tents commanded the better vantage points as we made our way to water's edge at 8 o'clock. There was little resemblance in the present condition of the hole compared to the low-water state of late August, the last time I'd visited Slate Run. The midstream rock was totally submerged and the current around it was swirling. Ken seemed less than convinced about my instructions concerning where he should concentrate his casts and my suggestion for fly pattern. I assumed the bulk of recently stocked trout

would be stationed near the end of the pool with its quieter flow, but this was being fished by the two other fly tossers. Therefore, I felt we would have to rely on weighted nymphs drifted along the flow leading to this slack water to have any success.

As the first hour passed uneventfully, I feared a repeat of last year's opening, or worse, when his first taste of fly fishing had been less then successful. The two trout he had had on were lost; and with them, much of his confidence in fly fishing. The hours spent casting in the backyard and the time spent beside my fly-tying desk watching his meager supply of flies grow began to seem wasted, I'm sure, as the 1977 season closed without a fly-caught trout. But as the snows of '78 began to melt, the unsuccessful episodes of the past season were mostly forgotten.

At 9:30, a yell made me forget my own frozen fingers. "I've got one!" Ken shouted. The throbbing arc of his light little rod confirmed his report, and the events of the next few minutes were etched permanently on both our minds. All fishing stopped nearby as the drama unfolded. Apparently, any prior instructions concerning the proper method of playing a trout on a fly rod were forgotten, for his helpless glance betrayed his plight. I think his first impulse was to head for shore and back along the trail until line, leader, and fish were beached in that order. Slowly, some thoughts of proper technique must have begun flashing across Ken's mind as he decided to stand his ground and fight it out. Meanwhile, the trout at the end of his line enjoyed the free run of the pool unencumbered by any semblance of a taut line. Whether to reel it in or play it on the line caused a nerve-racking few seconds during which the trout rejoined the group and resumed normal activity. From my demonstration from across the stream, Ken quickly regained his composure and once again brought the line tight against the bewildered trout which apparently had forgotten the caddis nymph imbedded in its mouth.

Without a moment's hesitation, the fish registered its distaste for fly fishermen and their tacky impersonations by fighting gallantly wherever it wished — under or above the water. Eventually, fish and net somehow managed to be in the same place at the same time, and Ken expertly separated fish from water along with fly line and assorted natural debris. A beaming smile received the congratulations from around the pool, as Ken slid the 10-inch trophy safely into his creel. From the look on his face, I knew his fly fishing career had officially started.

Anything that followed this episode would be anticlimactic, but an interesting story began with that fish. Soon after Ken's successful catch, I managed to fool a naive trout and bring it to net. Sometime thereafter, that now-familiar, "I've got one!" rang out. And sure enough, Ken was into this second trout. With the poise of a veteran, he fought this one into submission quickly, and after a few figure 8's with the net, intercepted the trout before it totally encircled him with line. Scooping it from the water and wading to shore to extract the nymph, I was the recipient of a somewhat different smile from this now extremely confident fly-rodder.

What was this? Did I detect an arrogant air of a fishing fanatic? Sure enough! This repenhensible little rascal was delighting in the fact that the piscatorical scoreboard read: Ken, 2; Dad, 1! And, to further sever parent-child relations, he blatantly babbled the fact for all to hear!

Well, by this time our fishing companion was on hand to add insult to injury. Bruce Burns, a normally thoughtful and sincere person, sided with this 11-year-old rabble-rouser, adding his own indignities. Trying to maintain my own proper decorum, and cover the flashes of red in eyes, face and neck, I received their taunts with a smile-covered set of clenched teeth.

Well, I could stand no more. The stage was set to unveil my feathered coup de grace. This creative work of art, best suited for framing than dunking, would now be called on to make the ultimate sacrifice. The "wiggling dorsata," as I affectionately labeled it, was ceremoniously bent on the leader, to the silent "oohs and aahs" of all nearby, as it hung majestically with its forked tail of goose wing primary pointers and dun-colored latex abdomen wiggling suggestively in the breeze, attached to the hook-covered thorax of spun black squirrel fur, and topped off with matching wing covers and a head adorned with melted monofilament eyes and pointer antenna, this 2-inch creation poised in readiness to reek havoc on the unsuspecting trout which had callously rejected my last three ordinary patterns.

The score would soon be evened . . . if Ken's feverish attempts to add yet another trout to his creel proved unsuccessful. My first cast deposited the killer fly accurately at the head of the flow, but it drifted unmolested throughout the entire course of the stretch. A smattering of laughter was heard as the fly sailed past my ear for another trip. Trying to appear outwardly undaunted, I offered the explanation that perhaps I had made the pattern too realistic to be fully appreciated by these mountain trout. During the course of this explanation, my floating fly line had floated underwater and had wrapped itself securely around the midstream boulder.

Meanwhile, things were happening below the surface. Although the fly line remained wrapped around the boulder, the leader and wiggling dorsata were probing the depths, and just about the time I managed to free the line, a brook trout of enormous dimensions violently attacked the fly. The ensuing struggle, during which this 12-inch "monster" came within 20 yards of dipping into my fly line backing, saw Ken and Bruce cheering disrespectfully for the trout. However, my superior ability proved too much as I skated the exhausted trophy into my net. I totally ignored the comment concerning length of nymph as compared to length of trout and nonchalantly inched my way across the stream to join my son and *former* friend.

After inspecting respective catches and the dangerously blue condition of everyone's extremities, it was unanimously decided to leave the stream and all hard feelings behind. Father and son relations have since returned to normal, and following serious discussions concerning respect for parents and elders and the despicable practice of making fishing a contest, Ken and I plan to enjoy the remainder of this season, and hopefully many others, tossing flies in the trout streams of Pennsylvania.

And, as a final gesture that no hard feelings remain, Ken and Bruce were presented with carbon copy "wiggling dorsatas." Ken's lack of enthusiasm toward this unselfish gift shows, perhaps, the need for one final lesson: appreciation for *works of art!*

Where the water ALMOST runs uphill . . .

Huntingdon County's

Saltilo Sportsmen's Club Nursery

by Bill Porter



Saltilo Club's nursery has unique raceway building. The roof is alternating panels of green opaque plastic; sides are totally screened, admitting additional light while keeping out debris. Water flows in on left side of the photo, makes two right angle turns and flows back up right side of photo.



Few will argue with the axiom that water won't run uphill. On the other hand, the lads at the Saltilo Sportsmen's Club, Huntingdon County, come pretty close to reversing that theory. The case in point is their cooperative nursery on Roaring Run, whose water leaves the raceway at about the same point that it enters. Considering the 104 feet of channel, the water movement and layout of the nursery is unique to say the least.

In more detail, the nursery building forms a rectangle with the raceway being U-shaped with right angle turns. A drop of 12 inches in the total length provides the flow. From this construction and water pressure, the current moves, in essence, in the top, around the turns and back out the top. Four keyways divide the raceway with one half way down the right side as the water flows, the second just after the first turn, the third at about one-third up the left side and the final one extending from there to the outlet drain. Accommodations for racks and screens are at each keyway as well as at the entrance and exit points.

The setup is functional if not standard; so there had to be a reason for this unusual construction. And there was, as Barry Anderson, current club vice president, explained. "It was the intention of the club to extend the nursery in a straight line, but permission could not be secured from a landowner. We had to work with the spot of ground we had leased; so we just sort of mutually decided to bend the thing around a couple of turns and make it fit." And that, of course, is what they did with rather satisfactory results.

But there is more to the Saltilo nursery than the above. Fine craftsmanship and very good housekeeping mark the total site. Nestled in a grove of mature trees, the raceway is completely enclosed in a screened building. Quality construction marks the high-peaked roof, the screens that extend to the eaves and the total framing necessary to produce an efficient and eye-appealing structure. And considering the building itself, the roof has multiple purposes: to keep out snow and excessive rain, leaf and needle debris, and predators. The roof also permits light to enter the raceway. Zinc sheeting is alternated with panels of green translucent plastic. The screened sides are sufficiently high to allow additional natural light.

Inside the building, a gravel walkway divides the two long arms of the raceway. Stone fill cushions both sides of the block walls, controlling dust, mud potential freezing damage in the winter to the raceway walls. The total unit is neat and workable.

Elsewhere around the grounds is a small storage shed for feed and work gear. A parking area has been cleared near the main building, leaving major trees intact. The intake system sets above the nursery and its screened box diverts water from Roaring Run to the raceway through two buried six-inch lines. This water can be controlled as needed. The Fish Commission's attractive sign, naming the club and nursery, completes the layout.

Historically, the Saltilo Sportsmen have been in the cooperative fish business since 1973 with Barry Anderson serving as nursery manager at that time. Aubrey "Smokey" Thomas is the current manager with equal dedication to the cause. Jim Collins sits as the club's president, interested in the nursery project. Dewey Hoffman is the chief feeder and was helpful to us on our visit to the site for this article.

But what of the trout — nothing has been said of the final product of the Roaring Run Nursery, its official name. Well, production has been at a pretty steady 4,000 fish a year. Species raised include brown and rainbow with emphasis on the former. Occasionally some holdover trout are retained; however, this was not the case in 1978 for the 1979 stockings.

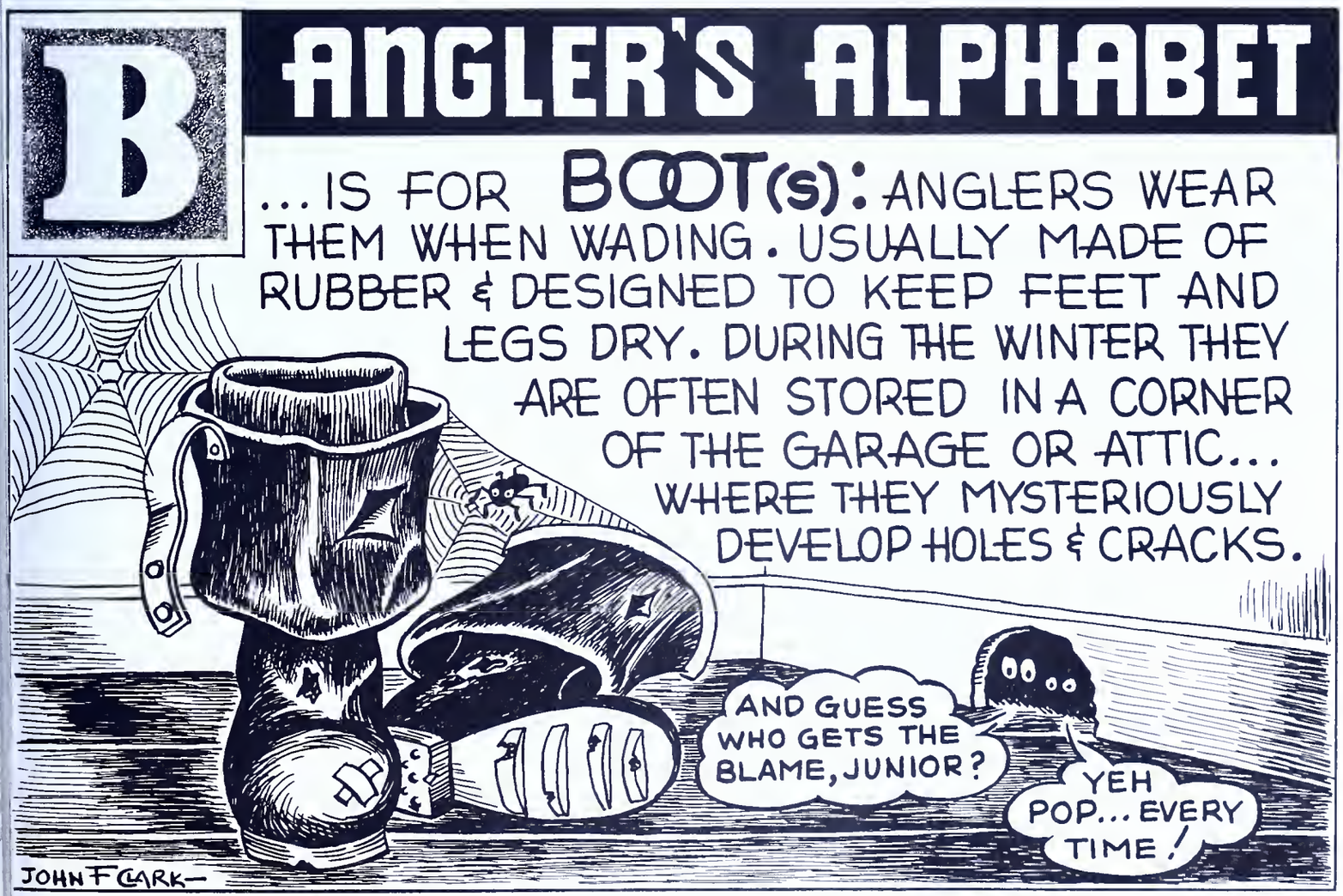
And that leads to the where and whens. Three Spring Creek and some of its larger tributaries receive the bulk of the fish. A limited number go into Thomas' Pond, a three-acre impoundment available to youngsters and the general public. Stocking is a rather constant procedure with both pre-season and in-season plantings being done.

Diet consists of all pellets with no venison being fed. This may be a bit unusual, considering the fact that the locale is prime deer hunting territory. However, the club has had good growth and few infections with the pellets and considerably less work than if they fed venison, admitting at the same time that the deer meat is a good feed.

Financial issues appear to be no strain. Membership dues are used, and as needed, a block shoot or raffle donation will fill the dollar gap.

If the club has a problem at all, it is with the water supply and, more specifically, the temperature. There have been some freezing situations with iced-over raceways in the winter. Considering the length of the unit and the one-foot drop, the water level can not be too deep and so the surface freezing could result in a fish kill. This problem may be partly due to the construction. On the other hand, the nursery's design was to resolve an even more serious concern. Basically the Saltilo Sportsmen have a very workable and commendable cooperative nursery that is adding to the pleasure of all who fish the Three Spring Creek.

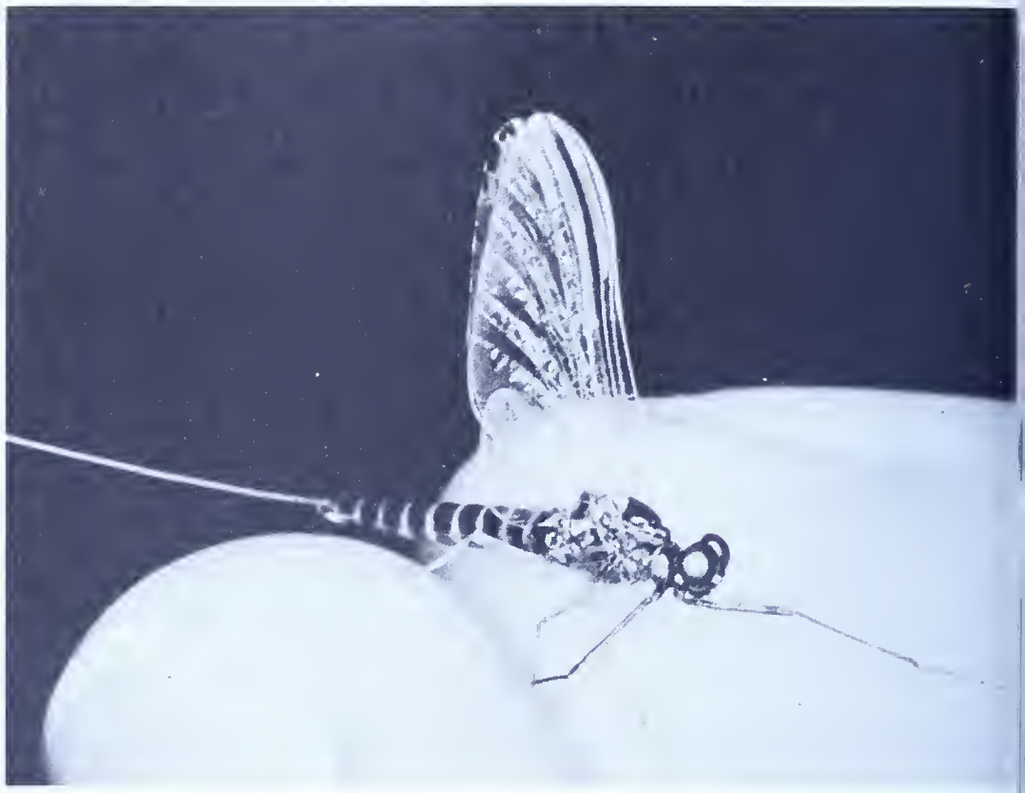
A club Open House usually previews the coming trout season in early April. Some fishermen may want to mark it on their calendars to drop in and say, "Thanks for a job well done."



FLY TYING

Black Quill Spinner

by Chauncy K. Lively
photos by the author



A male Black Quill Spinner from Penn's Creek.

Mayflies of the genus *Leptophlebia* are native to many trout streams all over the United States and eastern anglers know them variously by such descriptive names as Blue Quills, Early Brown Quills and Black Quills. While hatches of these insects rarely reach the magnitude of some of the better-known mayflies, they are nonetheless important enough to be considered worthy of representation in the angler's fly box.

In streams the favorite habitat of the larger *Leptophlebia* species is in slow water stretches because the nymphs are poorly adapted to live in swift currents. They are often found on the undersides of dead leaves accumulated in quiet water and their large gills enable them to thrive in water with fairly low oxygen content. Prior to emergence the nymphs migrate to shallow water along the stream's edge and are sometimes found in great concentrations. Emergence generally occurs at the surface but the nymphs occasionally crawl out of the water to emerge.

Leptophlebia duns are drab in appearance, with dark bodies and slate-gray wings, but in the transformation to the spinner stage a dramatic change in appearance takes place, particularly in *L. cupida,* commonly known as the Black Quill. The Black Quill Spinner is a strikingly beautiful insect with a brownish-black body, prominently banded in the abdomen, and iridescent wings sometimes tinged with brown. The outer tails, or cerci, are characteristically longer than the central filament. The mating swarms assemble from two to twenty feet above the surface and although the nymphs commonly live in quiet water, the female spinners prefer to lay their eggs in well-aerated riffles, from which the immature nymphs later migrate to their favored habitat. Mating flights may occur from early afternoon to dusk, depending upon season and weather conditions. Black Quills emerge from late April until mid-June and their appearance often coincides with the so-called "major hatches," such as the Hendrickson, March Brown and Green Drake.

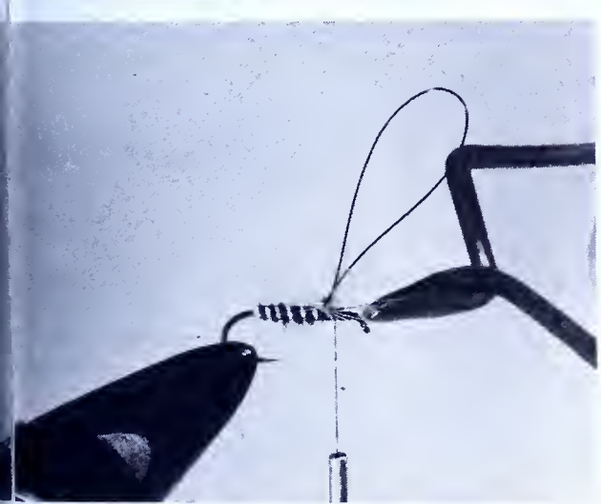
The Black Quill is one of the several mayflies which have undergone changes in generic classification since the 1930s. Researchers using the earlier reference works of Needham, Jennings, Wetzel or Morgan will find the insect classified as *Blasturus cupidus.* However, subsequent entomologists have made the genus *Blasturus* synonymous with *Leptophlebia* and the Black Quill is now designated *Leptophlebia cupida.*

Our Black Quill Spinner pattern is dressed with spent wings of bunched hackle barbules, so arranged after having wound the hackle parachute-style around a 4X monofilament post The tails are three pairs of ginger hackle barbs arranged as couplets with the middle tail shorter than the outer two. The body is a dubbing of the darkest brown Hudson seal fur ribbed with yellow thread for segmentation (Hudson seal isn't really seal fur at all it's the commercial name given to dyed muskrat frequently used in women's coats.) The fur should appear nearly black and if your Hudson seal is too brown, simply mix a little black fur with it until the desired shade is achieved. The ribbing thread should be wound counterclockwise, in the opposite direction of the fur dubbing otherwise, it becomes buried between the turns of dubbing.

There are a few mayflies whose *average* coloration and general appearance make hatch-matching a fairly casual process. "Just use an Adams and you can't be far wrong" is frequently good advice. But with spinners as distinctive in appearance as the Black Quill — as with the Coffin Fly and Tricorythodes — trout often tend to be extremely selective and a more than-random approach to pattern selection is required. This is particularly true in food-rich waters. Just as the coterie of fly fishers who regularly ply the fertile flats of Penn's Creek and Big Fishing Creek.







Dressing the Black Quill Spinner:

Left — Bind black tying thread behind the eye of a size #14 regular shank hook. Make a monofilament loop by doubling a 6″ length of 4X nylon and tying a simple knot near the tips. Bind to shank about 1/16″ below knot, with tips extending over eye. Trim off excess nylon tips and wind thread to bend.

Right — (Top view) For tails, tie in three pairs of stiff ginger hackle barbules, angled as shown and with center tail slightly short. Outer tails should be about as long as overall hook length. Then tie in a short length of 2/0 yellow thread over base of tails as ribbing.

Left — Wax a few inches of the tying thread next to the hook and apply a dubbing of brownish-black Hudson seal fur or synthetic. Wind dubbed thread to monofil loop to form tapered abdomen.

Right — Wind ribbing counterclockwise in spaced turns and tie off at monofil loop. Trim off excess ribbing thread. Then select a rusty dun hackle with barbs as long as overall hook length and strip off webby lower barbules. Position hackle as shown, with glossy side down, and bind stem to shank along far side of monofil. Trim excess stem.

Left — Clamp hackle pliers to tip of hackle and wind parachute-style around monofil post, beneath knot, making each turn underneath preceding turn. Tie off in front and trim off hackle tip.

Right — Moisten finger tips and separate hackle into two halves. Stroke barbules and roll between fingers to achieve spentwing posture. Then pull loop forward and down, as shown, straddling the shank behind eye. Tie off and trim excess monofil. Apply a little more dubbing to the thread and form thorax by winding behind, in front of and in figure-8 turns around base of wings. Then wind dubbing to eye, whip-finish and cut thread.

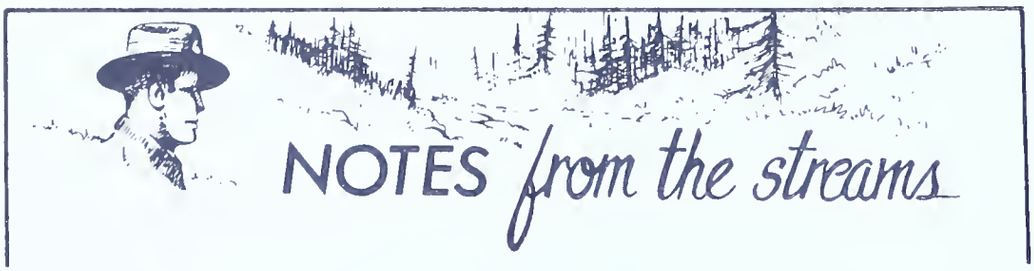








lint — The Black Quill Spinner is ished by applying a drop of aquer to head and to dubbing atop ae of wings.



REAL "GOOD GUY"!

While patrolling East Branch of Tionesta Creek, I asked a fisherman if I could check his creel, he said, "Sure, but I've got over the limit." "How many?" "Got eleven, but think you should give me a break." I asked, "Why?" He said three were not his . . . he found them along the stream. A check showed two trout, 6 beer cans he had emptied and three pop cans he had picked up. He sure got a break and a wish that we had more "SPORTS" like him.

Owen F. Quarles
Deputy Waterways Patrolman
Warren County

"MOST EFFECTIVE WAY" —

How do two legal northern pike, a 34-inch musky, an 18-inch bass, and a 21-inch bass sound for one day's catch? Catches such as these can be made by fishing through the ice at Lake Arthur. During the last week of the winter bass season one angler caught 9 largemouth bass, all of which were over 17 inches. Also jumbo size crappies can be caught. Ice fishing is one of the simplest and most effective ways of catching fish.

Eugene Scobel
Waterways Patrolman
Butler County

EXTENDED SEASON ACCEPTED

I've had many phone calls pertaining to the extended trout season (to the end of February), and all the phone calls have been very positive for this liberal action on the part of the Commission.

Bernie Ambrose
Waterways Patrolman
Elk County

OPTIONS!

A local outdoorsman who went turkey hunting last fall arrived at his favorite turkey hunting grounds (through which his favorite trout stream also flows) only to discover that he had left his turkey call at home. Being 35 miles from home, he felt totally dismayed until he remembered that his fishing rod was in his vehicle.

He dicided to give fishing a try and after chasing down some grasshoppers for bait, he was able to land his extended season legal limit of three brown trout. The day was not lost.

Bud Flyte
Waterways Patrolman
Somerset County

EXPEDIENT?

Some poachers just expect too much in return for what they do. After apprehending one for fishing in the Farnsworth CO-OP Nursery he had the gall to ask me if our District Waterways Patrolman, Paul Sowers, had a "Drive-Up Window" where he could pay his fine . . . or would he have to get out of his car and go into his office? I am sure Paul was putting me on when I told him what this guy said, but he did say the way "business' has been lately he was thinking about putting in one!

Owen F. Quarles
Deputy Waterways Patrolman
Warren County

MADE BELIEVERS OF 'EM!

Ed Wagner, of Seipstown, landed the largest musky ever taken out of tiny Leaser Lake in northwest Lehigh County. The fish was 42 inches long, weighed about 20 pounds and was caught this past summer. As he was landing it, and during the 15-minute battle prior to that, there were a number of boaters who gathered around to watch. Some of them commented later that they could not believe such big fish lived in the lake and that they would be afraid to go into that water. This turned out to be good news for us since swimming is illegal in the lake and many boaters have been purposely capsizing their craft as an excuse to do a little swimming. That fish must have put some fear into these people since we experienced virtually no problems with swimmers this past summer.

Fred Mussel
Waterways Patrolman
Lehigh County

JUST COUNTING

Last summer, while doing a required Angler Usage Survey on Baker Run, this officer counted only two fishermen. During this same period, I also counted three snakes, one copperhead and two rattlesnakes. Perhaps the high *"Fangler"* count effected the low *"Angler"* one.

Jay B. Johnston
Waterways Patrolman
Clinton County

BAD LUCK!

While patrolling the Allegheny River below Lock 5, Deputy Bill Snyder and I observed a man and a boy fishing from a small boat. Unable to see any PFD's, we went over to check out their boat. The fellow reeled in his line and let the rod hang over the boat with a lure on the line. The man was saying that all he and his son could catch were bass, and none were legal. He also told us that he doubted the walleye's existence in that part of the river. No sooner than he said this, I looked into the river and saw a walleye coming towards his lure. You guessed it! The fish took the lure and stayed put. The man grabbed the rod and reeled up a 14½" walleye. The man told us that his luck was really sour. Bill and I told him it was getting better. He asked how? We told him he had enough PFD's so he wouldn't have to pay a fine.

Sid J. Dickler
Deputy Waterways Patrolman
Allegheny County

NAME GAME

Some of the anglers in my district refer to the Eastern Brook Trout of the unstocked streams as a completely different fish, giving it names such as *"Spruce Trout," "Hemlock Trout,"* and, in one geographical area of anglers it is called an *"Original!"* Sorry, fellows, it is one and the same, our STATE FISH, the ***Eastern Brook Trout.***

Jay B. Johnston
Waterways Patrolman
Clinton County

"FAIR SHAKE"

The Fish Commission's new policy on not publicizing the exact date and time of trout stockings is a welcome change. There have always been individuals in every county that makes a career out of following the fish truck. Some of these fishermen have kept lists of the trout stockings in

three or four counties and would try to be present at all of them. They do take an inordinate share of stocked trout to the detriment of other nontruck-following fishermen. It is distasteful and a disgrace to true fishing when someone throws their bait after a trout that's been in the water for three seconds. This new policy regulation should give everyone a fair shake.

Fred Mussel
Waterways Patrolman
Lehigh County

TALK ABOUT TOUGH LUCK!

My friends, John Shimko and Neil Cook, Jr., of Kane, and I were fishing on a beautiful June evening on the Allegheny Reservoir. Suddenly, John had a tremendous strike and he brought in a dandy smallmouth bass which was returned immediately to the water. I saw John and Neil some time later and John moaned, "That was the *only* fish I caught all summer!" Now this brings to mind *why* he turned the bass loose in June. Three good reasons entered my thoughts. First of all, bass were not in season, secondly, John is a Baptist minister, and finally, he had the misfortune to be fishing with me. When I enumerated the reasons, our mutual friend, Neil said, "Did you ever wonder why we didn't invite you to go fishing with us the rest of the summer?"

Don Parrish
Waterways Patrolman
McKean County

SALUTE

Hats off to the Bureau of Forestry's Jude Richardson and his YCC crew for their stream improvement work on Mill Branch and Hyner Run. The fisheries resources of Clinton County and the fishermen of the Commonwealth have truly benefited from their fine work.

Jay B. Johnston
Waterways Patrolman
Clinton County

"IT'S GOING TO WORK"

Too many years ago the Clarion River was racked by massive fishkills. Old timers still remember the stench of death through that mountain valley. Till the last few years it lay dead, but modern updates to the discharges of man and the reclamation of some mine sites has allowed it to start its recovery. In the early 70s several warmwater species were introduced without success. Recently, upon the request of field officers, Area Fishery Manager Ron Lee did finally have the Clarion approved as an experimental trout fishery. In the last two years the Clarion River has received hundreds of thousands of brown trout fingerlings; and, although it's too early to break out the champagne it sure looks like it's going to work. Fishermen who have had the pleasure of fishing some of the great western streams like the Madison and the Snake say that the Clarion is just as good fishing. Of course, with such a new program the lunkers don't exist yet, but I expect that will come in time if the program continues to be a success.

H. Porter Duvall
Waterways Patrolman
Jefferson County



JUST IN CASE . . .

Giving assistance to other agencies is just another function of the duties performed by Waterways Patrolman. Recently, I received a request from Officer George McMillen, K-9 trainer for the Johnstown Police Department, to acquaint nine K-9 dogs along with their handlers in testing the dogs' reactions while riding in a boat.

At the time Officer McMillen was conducting a K-9 training program for nine officers and their dogs. The K-9 units were from the city of Johnstown, Upper Yoder Township, Stony Creek Township, and the city of Altoona. Although the K-9 units are primarily used for foot patrols, riding in patrols cars, etc., there may be a time when a K-9 unit might be needed to work around some water areas and the method of transportation to some areas would have to be by boat. This was the concern of Officer McMillen: to see how the dogs would react while riding in a boat.

In conducting the test, I used my 17-foot Boston Whaler patrol boat, and the water area was Glendale Lake, Prince Gallitzin State Park. Some of the testing included running the patrol boat at high speeds and in rough waters. No problems were encountered and the dogs seemed to enjoy the boat ride along with their handlers.

The two officers in the photo are Thomas Ruckser (DWP) and Dana Baumbaugh, both are from Stony Creek Police Department. *Photo: courtesy of Johnstown Tribune Democrat.*

Robert L. Kish
Waterways Patrolman
Cambria County

BOUGHT A "SPARE"!

While looking up some fishing license information at a local issuing agent's establishment, I noticed that a fisherman had purchased two consecutive Senior Fishing Licenses. I asked the agent about it and he replied that the gentleman bought two licenses because he always loses one and can't always obtain a quick replacement. Lots of fishing luck to Mr. Geza Takacs, of Emmaus, who purchased the licenses. Now if he could only talk more fishermen into doing the same.

Fred Mussel
Waterways Patrolman
Lehigh County

Ashore & Afloat

by Gene Winters



The smaller the craft, the more important proper stowage can be. All personal equipment should be checked and double-checked frequently.

With the coming of spring, it's time to make sure your boat and power plant are ready for another season on the water. If you did your homework properly when you put the boat in storage last fall, you shouldn't have a lot of real hard work to do this spring. But if you took the easy way out last year, chances are you'll still be working away while others are already at play. In addition, statistics show that boats and motors with proper maintenance and treatment at storage time fare far better throughout the season than those neglected or postponed for springtime work. Then, human nature being what it is, chores are usually rushed in the spring, resulting in incomplete, and even *sloppy* workmanship.

If you added a fuel stabilizer to the gas tank last fall, you shouldn't have much to worry about here. If you didn't, there is a good chance gum and other deposits will not only give you a pretty rough start-up, but also plague you with carburetor and those other fuel system gremlins through much of the coming season. Smell the gasoline. If it has a distinctly acrid, sour odor, you'd better (carefully) drain the tank and lines and flush it out with fresh gasoline. If the tank is built in, it may not have a drain and you may have to siphon the old, stale gas out. Even if you did use fuel stabilizer, it won't hurt to pour some dry gas into the tank to take care of any water accumulation from condensation. In fact, with the varying (it seems like from bad to worse) quality of gasoline available today, it's not too bad an idea to add some dry gas to each tankful.

If at first start-up you get symptoms and indications of carburetor or other fuel system problems, it will pay to get a mechanic on it or, if qualified, tackle it yourself before even attempting to begin the boating season. Rebuilding of the carburetor and fuel pump and replacement of all gas and carburetor filters are probably in order. If you are not inclined to tackle rebuilding yourself, you might try removing the major components yourself and taking them to a dealer for servicing. This could save you a few dollars and may get you towards the head of the line of boats stretched out in front of the dealer's shop, all seeking immediate attention.

Before putting the battery back aboard, make sure not only the terminal posts but also the battery case itself — particularly the top of the case — is properly cleaned. Use a neutralizer, such as a household baking soda and water mixture, to do the job. Be sure, however, to keep the cleaning solution out of the battery cells. After cleaning, rinse thoroughly with fresh water. Make sure the battery is fully charged and that it holds a charge. If you have any doubt, take it to a good, well-equipped service station and let them check it out. They should be able to tell you not only how well it takes a charge but also how well it holds a charge. Good garages can check it out under both load and no-load conditions. If it's the type that still permits you to get at and check the water level in the cells, invest a little money in a temperature-correcting hydrometer and check it faithfully and regularly throughout the season. For weekend boaters, it only takes a few minutes to check the battery before you head out.

Make a thorough inspection of all wiring, checking carefully for frayed insulation and loose or corroded terminal connections. Special attention should be given to the ignition key switch and wiring and all other switches and gauges. (If you have a rope-starting outboard, be sure the rope is in good shape.) Equally important are good mechanical and electrical connections on all engine circuits, particularly those involved with the starting circuitry. Don't neglect the "ground" connections . . . these are the most frequent sources of trouble. After ensuring everything is in top shape, spray all terminals and electrical



Despite a good maintenance program, take time to check things over before each launch. Do it while you're waiting to get on the ramp.

connections with a moisture and corrosion-resisting electrical spray.

Check all running lights, the anchor light, the horn, wipers, the compass, the fishfinder, and all other electrical and mechanical accessories. If you have an electric bilge pump, make sure it works. This means going beyond just turning it on and listening for the pump noise. Run water into the boat and make sure it pumps it overboard properly. If you have an automatic pump, make sure it works automatically as well as manually. Hand or other manual bilge pumps should also be water-tested.

If your boat has a bilge blower, don't overlook this most important safety device. Check all wiring and terminal connections that are accessible. Check the blower hoses for holes and, with the blower operating, check that air is coming out the exhaust vent. Make sure the exhaust vent is free of the winter's accumulation of cobwebs, debris, and even a bird's nest.

The boat's controls should be carefully examined and checked for proper operation. Lubricate any fittings provided, such as the pivot tube on the outboard and/or the fittings at the ends of the steering and gear/throttle control cables. Make sure any mounting brackets under the dash are firmly fastened. If you have cable and pulley steering, check the condition of the cable itself as well as ensuring the pulleys themselves turn freely. The gear shift (often incorporated on a single control handle with the throttle) must move freely and positively within its range. The neutral detent must be clean and firm . . . there should be no question of finding the neutral position when you need it.

Hopefully, in 4-cycle engines, you changed the oil and filter last fall. If not,better hop to it now. Check all engine fluid levels, including the antifreeze solution if you have freshwater cooling. Don't neglect checking the transmission fluid and its condition. Make sure the lower unit of an outboard is full of the proper gear lube or oil. On sterndrives, the upper housing must also be checked.

When you fire up the engine, check quickly first for fuel leaks and secondly for water leaks. If you have an outboard that spits out a stream of water to show the water pump is working, check for it. *If you do run the engine out of water* (not recommended but a quite common practice), don't run it over 700–1000 rpm and then only for the shortest possible time. When you shut it down, spray all metal parts (such as engine cowlings) with a good rust preventative spray and all electrical and ignitions parts and wiring with one of the many ignition sprays readily available.

Don't stop short of a general cleaning, scrubbing, and waxing (as appropriate) of the entire boat, inside and out. Remember, a smooth bottom means less resistance to water drag and that translates into fuel savings of as much as 10–15%. Having the boat clean and well-organized inside means comfort, convenience, and, yes, even safety.

Speaking of safety, don't miss checking anchors, bits, chocks, PFD's, ring buoys, searchlights and lanterns, etc. Put each article in a proper place and always the same place so you and every member of your crew know instantly where each and every item is at any time. This can be most important in event of a sudden and unexpected emergency. Those of you with rowboats and other small craft have certain responsibilities and tasks, also. For example, don't neglect to check out oars and paddles for cracks, splits, and even splinter-producing rough spots. If you've ever paddled a 14-foot rowboat back to shore with one 7-foot oar, you'll know what I'm talking about. Check for lost keeper pins or failing oarlocks. Cartoppers, take time and care when reinstalling that carrier on the auto roof. And if you trailer, don't neglect this all-important bit of equipment as well as the tow vehicle itself.

All or even some of these chores will take some of your valuable spring time. But in the long run, it will probably save you much more time than you'd lose with a breakdown on the road or water. Government, industry, the military, and thousands of plain citizens spend countless hours practicing good preventative maintenance, even though we'd rather be doing other things. But it pays for itself. If you can guarantee the same impressive results without the work, I'd sure like to share your secret.

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Mother Nature is a bountiful hostess to trout in good water. She serves them not only a great variety of aquatic insects, but also such tidbits as ants, grasshoppers, leaf worms, bees, moths, beetles, grasshoppers and even houseflies and butterflies, all of which can be imitated by artificial flies.

Don't worry if you have trouble fishing with a leader 12 or more feet long. Even for an expert, a very long leader is difficult to cast properly. The average angler can do well enough with a nine-foot leader. A leader slightly shorter is even better in using bulky and wind-resistant flies.

Graphite rods must be handled with care. They are tougher than bamboo, but not as resistant to damage as glass. The fibers of the graphite can be damaged if the rod is banged against a hard object or otherwise treated roughly.

Big wet or dry flies or nymphs can be used effectively in rough and broken water. For the angler and the trout, they are much easier to see than smaller sizes. They do not often alarm the fish because the broken water conceals their fraud, and the fast current forces the feeding fish into a fast decision on whether or not to strike.

Move minnows around frequently when still-fishing with live bait. About every 10 or 15 minutes, lift the baited hook slowly toward the surface of the water and shift it to a new location. A fish may ignore the bait when it hangs in one position for a long time but may attack it when it appears to be moving away.

There are shorelines and shorelines . . . it is futile to fish in shallows that provide no cover for fish. Concentrate on areas where there are weeds, lily beds, sunken logs, big rocks, stumps and other obstructions in the water.

Black or very dark brown wet flies are good early in the trout season. Most insects in the water at this time of the year are very dark in color.

Fish slowly and very carefully in the spring, taking time to cover every possible lie of a fish, instead of seeing how much water you can cover, aimlessly. Fish are likely to be widely scattered as they feed in the high water of spring.



A canoe is an ideal vehicle for an angler fishing lily pads and weeds in a pond or a quiet cove in a lake. It makes virtually no disturbance, if it is paddled properly, and the fisherman can approach close to his target to make delicate and accurate casts. The canoe should be moved slowly around the edges of the pads or weeds, with the angler casting to the outer ledges or into pockets of open water in the weeds.

Did you ever catch a fish with a Corydalis cornuta, a corruption bug, a water grampus, a goggle-goy, a flip-flap or a dragon? You probably have . . . these are names given the hellgrammite.

Even tiny split shot will cause a baited hook to hang up frequently on bottom. A better form of sinker is the narrow strip of very thin lead that can be twisted around the leader. Lead strips come in packs, like paper matches, and are not expensive.

Trout often find cover where the current has cut under the bank of a stream, particularly if there is heavy weed growth on the bank. The angler can fish such a spot by keeping low and dropping bait or lures delicately into the current close to the bank.



Fish from every possible angle before giving up on any bit of water that looks fishy.

In fishing a deep stream pool with wet flies, let the flies sink deep in the water, then lift them gently toward the surface a short distance, then stop and let the flies sink again, continuing this system until the retrieve is completed. Wet flies used in this manner represent hatching nymphs struggling to reach the surface.

The precise spot where a stiff riffle or rapids slows down at the head of a stream pool is a favored feeding station for trout and a hot spot for the trout angler. As the current slows, it drops natural forage such as nymphs, and trout in the slowing water can feed with far less exertion. Fish the area from one side, letting the stream current carry bait or fly downstream into the pool area.



Light leaders and small hooks make bait fishing more effective. Use a leader with a 2X tippet for slow, clear water; 3X for very clear and low water. Hooks can be as small as sizes 12 and 14.

In making your own leaders for use with snelled wet flies, tie dropper loops so that they point toward the butt of the leader and the end of the fishing line. In such a position, the loops will stand away from the line and hold the snelled fly away from the line.

Wet flies are imitations of three types of food taken by trout. They look like drowned insects, small minnows or an aquatic insect changing from larva to adult stage. Even when they are reluctant to rise to surface flies, trout are on the watch for the sunken insects.

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the sparkle of springtime
on the whitewaters. . . .

PENNSYLVANIA

Angler

MAY—1979

the Keystone State's Official FISHING·BOATING Magazine...

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THE ROAD BACK . . .

On April 5 we heard President Carter's energy message to the nation. Some of its details most people could have predicted — deregulating pricing on American produced petroleum products, an extra tax to keep the petroleum industry from extra profiteering at the expense of the public; and, above all things, preaching conservation to the American people. Most of them are still not convinced that there's any problem, and with some justification. I would guess that most Americans don't think there's really any problem and that we can't believe anything anyone tells us. The elimination of free parking for federal workers may seem like an insignificant thing, but with the proliferation of the federal government, this doesn't sound like a bad idea. Americans, and specifically Pennsylvanians, must get it through their heads that they cannot ride to work, one person in a car, and get all the gasoline they want at a price they can still afford, and get away with it.

On March 28, 1979, Harrisburg, Pennsylvania — more specifically Three Mile Island in the Susquehanna River — became world-known. An accident in the Metropolitan Edison Plant, which at this writing has been attributed to human errors and mechanical malfunctions, allowed some radioactive noble gases to escape, without control, and for the next five days everything seemed to go wrong. On March 30, the Federal Nuclear Regulatory Commission was recommending evacuation of pregnant women and families with pre-school aged children within a ten-mile radius, and over that weekend 200,000 people left southcentral Pennsylvania for the hinterlands and stayed there until they began to believe what they were being told.

This wasn't quite the same as riots, wars, planes dropping napalm from the sky, or an Agnes or Eloise flood. Throughout that weekend you could watch the television and see Metropolitan Edison Company doing the predictable thing. They were lying. Left to their own devices, it is quite possible that they would have said nothing or done nothing . . . or probably would have been handing out lead coats to the people living within a ten-mile radius, telling them that they were Easter presents. The media reporters, on the other hand, behaved like animals and the public was left to fend for itself, or decide for itself. And all the time one of the important sources of energy — nuclear fission, lost credibility in a time when the OPEC nations and even our own petroleum industry — and closer to home, coal producers — were rubbing their hands because the whole country became aware of the problems and resolved not to have anything to do with nuclear power.

Partisan politics and short-term greed will flavor the critique of President Carter's energy message and it will lose a great deal of its effectiveness because of these influences. Our office is inside the ten-mile radius of influence of Three Mile Island — our employes are affected in many ways. Our patrol boats are being used for water sampling and the sampling of fish flesh, which to date have turned out to be in great shape. Anything as drastic as this is bound to affect not just license sales, but the pattern of our lives and the direction in which Pennsylvania will go in being one of those resource-rich areas which other areas drain for their own creature comforts.

I hope that the American people have finally had enough of living beyond their means with respect to our natural resources, and they will pay attention to the President's message and denounce those who are making big but short-term profits at the expense of our resources. I hope that the fear of the unknown is not going to be enough to completely discourage the development of sources of energy that are fraught with problems, but still better than complete captivity to a bunch of greedy, hungry, fossil fuel entrepreneurs who wouldn't miss water and clean air so long as they paid good dividends to their stockholders. It's time that responsible Americans realize that they have been manipulated to a point where the road back is almost not negotiable.

Ralph W. Abele,
Executive Director

Pennsylvania Angler

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FRONT COVER

"Shad Planking," a common method of cooking shad in days gone by enjoys a revival. Read all about it on page 8.

BACK COVER

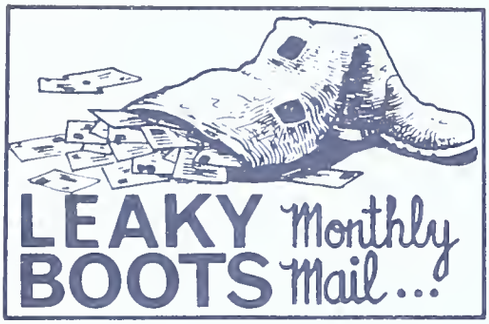
Master of the bow, Keith Schuyler swapped his for a fishing rod and displays the results. Photos: George E. Dolnack, Jr.

MONTHLY COLUMNS

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James F. Yoder, Editor

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SALMON EGGS —

While reading the February 1979 issue of *Pennsylvania Angler,* I happened across your request for a suitable method of preparing and storing salmon eggs which will be used as bait. After reading the response to your request, I felt that the process which was recommended could be expanded.

Originally from the coast of Oregon, I lived along the Alsea River for a period of ten years. This river is known for its excellent chinook and winter steelhead fishing when the region has had sufficient rain for high, fresh water. The use of salmon eggs as bait is very common, and it is for this reason that my father prepares eggs for storage throughout the year.

All you need are fresh salmon eggs, borax (common grocery store variety, boxed), scissors or a sharp knife, and empty plastic butter tubs or equivalent, with covers. Spread newspaper on top of the kitchen counter or on a suitable table, and then pour a thin layer of borax on the newspaper (you may prefer to use a shallow dish in which to place the borax). You can add more borax as you go, if needed. Using the scissors, cut a skein of roe (assuming the eggs are clustered into skeins, and not individually separate) into approximately one inch square clusters, or a size which you prefer. Roll these individual clusters in the borax making sure that the eggs get a thorough coating. After all of the clusters are well coated, you can now pack them in the plastic containers as follows: in each container place a bottom layer of borax, then a single layer of egg clusters, a layer of borax, a layer of egg clusters, etc., until each container is full. Be sure to leave a little room on top for a final layer of borax. Now place the cover on each container securely.

In order for peace in the house and kitchen, I suggest that each container be labeled with the contents and the date when you obtained the salmon eggs. Upon completion of this process, the containers should then be placed in the freezer. It might be wise to have a separate section for them if the freezer also contains food items, need I say more. The eggs should "keep" for a year or two or more, until you take out a container for use.

The eggs when used are now in convenient bait size. During a day's use of a container, should you not use the entire contents just place it in the refrigerator until you need the eggs again. The eggs have been known to "keep" for a good three to four months in the refrigerator, plus or minus.

I hope that this method is satisfactory for your use, and that during years of poor egg supplies, you can boast of an excellent supply in your freezer. Good luck and good fishing.

WALT REIL
Douglassville

"... VIEWS ARE MINE ..."

I have read recently of our increase in fishing license up to $9.25, which I am more than willing to pay. The increase is small in measure but large in the fact that I personally feel a group as large or larger than the adult fishermen has been badly overlooked as a source of revenue.

Now, I understand my views are mine and not necessarily everyone else's — so here goes. I have a son who will be 12 in March and, may I add, he is an *excellent* fisherman. Several times showing the "old man" how to do it.

This is the age group that I am referring to — between 12 and 15 years of age. There are thousands of these *excellent* fishermen in our state. Now, I have had the opportunity myself to observe my son and older boys who can and do understand the ways of fishing a lake or stream as well as their dad has for the last twenty years or so.

Now, please don't get me wrong! I enjoy watching the younger troops catch their limits and have often helped some by offering some advice or perhaps a few flies to assist in their quest for the trout. These fishermen between 12 and 15 learn very quickly that they are getting the benefits *free* from we adults who get the license increases from time to time. I would fully support a resolution to have a *Junior* license for this age group, but only for the reason of having them share the costs of having the excellent trout and warmwater fishing in our fine state of Pennsylvania.

D. EDWARD SEIDEL
Milton

COLLECTOR —

I had a little writeup in the *Angler* a year or so ago about some fishing license buttons and I would like to know if you would please run it again.

I am looking for two years — a 1924 & 1925. I have some extra buttons from 1934 up to '59. I will be glad to hear from anyone who could help. I would like to thank Mr. John Winters from Springfield, Pennsylvania for all of the things he has given to help my collection.

Thank you for your time

JOHN PATCHELL
2300 Locust Street
S. Greensburg, Pa. 15601

"ALBINO"?

Last year while successfully fishing one of our streams and about to call it a day, I noticed a fellow fisherman upstream land an albino trout. Then, seeing a light flash in the pool I was fishing, I decided to fish a few more minutes. Wanting to try something new, I used a red "rubber" worm of about 5 inches long. On the second cast I hooked and landed a 14-inch albino.

V. P. REED
Allentown

It's highly unlikely that you caught an albino, Mr. Reed, since the Palomino trout is among the fishes now in our streams. This golden colored cross is unlike normally colored trout and could easily be mistaken for an "albino," at least from a distance. Ed.

CHANGE OF HEART ... OR ADDRESS?

Methodically, I walked up to the gate of my live bait supplier's home, just as I have done for years on my way for trout, bass and ice fishing.

I was dumbfounded when a sign overtly stared me in the face. It read: ***"Fishermen, No Bait Of Any Kind Sold Here! Don't Come Back!"*** in bold print.

I walked away bewildered if not amazed and I wonder, is this a new homeowner who has been awakened repeatedly by fishermen at 5:00 or 6:00 a.m., or has my live bait salesman had a change of heart? I prefer to leave the solution to my imagination and chuckle at the thought of an unsuspecting, new homeowner.

LEONARD J. OSTANEK
Peckville

"NO CONTEST"?

Being a fisherman most of my life, and a long time subscriber to the *Pennsylvania Angler* magazine, I especially enjoy *"Leaky Boots"* and *"Notes from the Streams."*

This year my buddy and I both retired and we took advantage of fishing for coho. Although we didn't catch many (3), we enjoyed fishing for them. But, the most unusual thing happened when we looked

n Godfrey Run and saw a wild mink trying to get hold of a spawning coho. When he saw us he tried to hide, but he could not resist all those fish and kept trying to catch and hold them! We don't know how successful he was because we tired of watching him. It was quite an experience and we enjoyed it, of course.

WALTER ASZKINIEWICZ
New Kensington

CARP & SPIDERS —

My friend and I were out fishing in a lake nearby in the summer. We were fishing on the bottom and we weren't getting any action for a good while so I decided to try to catch some bluegills on my fly rod. I looked around for a moment and I saw a fish near the top. I cast out and it took my lure. I had about a five-minute battle. When I reeled it in, I had caught a 15-inch carp. The lure I used was a sponge-bodied spider. Although it swallowed my spider, it was something I'll never forget. I know it is hard to believe, but it happened — a carp on an artificial.

MICHAEL KROFCHECK
McClellandtown

EELS, TURTLES . . .

I am sending to you a picture of a 32-inch American eel which I caught in French Creek while night fishing for walleye from a boat using live minnows and a gasoline lantern to attract baitfish to the area.

I had planned on returning it to French Creek after interested people had looked at it. I had put it into a tub partly filled with water the night I caught it. But later Sunday, it escaped from the tub and when I discovered it in my crown vetch it was too far gone to revive.

As per instructions from my good friend Walter Luzusky, I dressed it and my wife prepared it for dinner — *delicious*.

For what it is worth, my grandchildren, 14 and 16 years old, claim they have seen small American eels in Woodcock Creek. They are very good fishermen and very well educated on fish etc., and I have no reason to doubt their statement. However, I am 71 years old and have fished French Creek and the feeders from their source to the Allegheny and the one I caught is the first I have ever seen.

I am also including a picture of a mud dog I caught. This, for sure, is nothing to boast about for they are a pain when fishing with live bait.

Please look closely at the bait which is that part of the meat just back of the rib cage of a woodchuck. It was placed on the hook covering the point and curve of the hook and tied on. The reason it was tied on was the snapping turtle will strip those .125 diameter wires formed to the 3½" long × 1" space between shank and point hooks in a matter of minutes and they will do it even with the bait tied on. I have watched them claw the meat with their front claws and eat it as they tear it off the hook.

I realize why the hook has to be larger, it is to prevent catching fish. But, if the shank could be shortened and wire diameter reduced, the turtle couldn't get the leverage. I have caught turtles all of my life on set lines and during this period I have only caught one fish, a very large bullhead. The only way I can now catch turtles legally is a hand line and smaller hooks.

The meat shown in pictures is larger than necessary. I had tried all sizes with the same results. This happened to be my largest attempt.

RALPH S. VAUGHN
Saegertown

Sorry we couldn't use those colored photos, Ralph, but I believe our readers will "get the picture." Perhaps one of them has had a similar problem and found a solution. If so, we'd like to hear from them. Ed.

". . . SO CAN PENNSYLVANIA"

One last note from the old bass fisherman from New Hampshire — for years I've enjoyed the *Pennsylvania Angler*, and God willing, will yet read future issues.

Especially do I find the articles of Delano R. Graff most interesting and informative. In the February, 1979 *Angler*, he lists the pros and cons of bass size limits. Up here, for many years we set the limit at 5, with 12 inches minimum for both small and largemouth. For New Hampshire, no hardship — and if we can do it, I'll wager so can Pennsylvania!

Our local club (Concord Bass) proposed to raise the largemouth minimum to 14 inches, but finally decided to go along with the state minimum. Either way we win, as we return most of our catch to the waters anyway. We permit individuals to keep a lunker (usually 7 pounds or more) to be mounted.

May the best attend the *Angler* in years to come!

PHILIP D. BELL, SR.
Penacook, N.H. 03301

NEVER!

I was born and raised in Brackenridge, Pennsylvania and spent many happy days at my family's camp north of Oil City. I have lived on Cape Cod since my Navy discharge in 1962 and I can't tell how pleased I was when my father gave me a subscription to the *Pennsylvania Angler*. I read it voraciously cover to cover and, until now, have enjoyed every word and picture.

Your comment to Keith Schuyler in the Leaky Boots section (February '79) regarding the Postal Service's "bang-up" job "beating-up" copies of your magazine is not only uncalled for, it is untrue.

I'm sure very few Massachusetts citizens receive your magazine, which means that the Postal Service must handle my copy many times before it arrives in my mail box. It has never, in all these months, arrived in less than perfect condition.

The Pennsylvania Fish Commission does outstanding work and its voice, *Pennsylvania Angler*, is an excellent magazine. Why not stick to what you know best.

ROBERT D. BRESLIN
North Eastham, MA.

P.S. Needless to say, I take as much pride in my chosen profession as you do in yours. I am Postmaster, North Eastham, Ma. 02651.

". . . JOIN US"

Mr. Ralph W. Abele
Executive Director
Pennsylvania Fish Commission

Dear Mr. Abele:

I'm not sure that David L. Travis (Leaky Boots, December, 1978 *Pennsylvania Angler*) shouldn't be among the first to occupy space in one of those super satellites (Editorial Comment, September, 1978 *Pennsylvania Angler*).

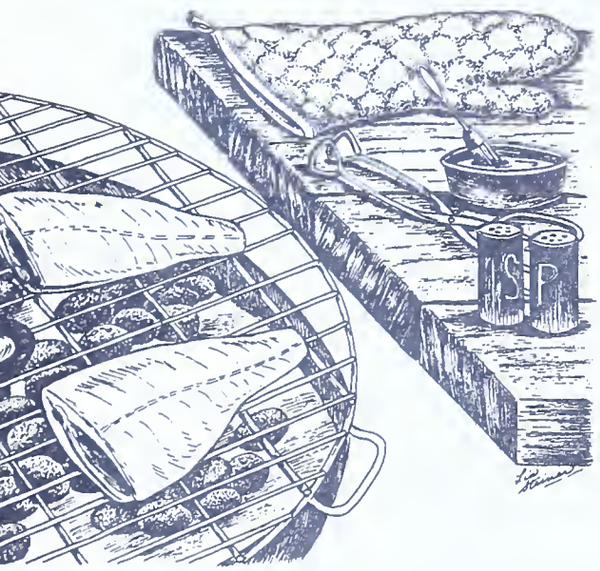
Personally, I am in favor of reviving our space program to a degree — it has provided many benefits, as Mr. Travis stated — however, I believe he missed the point of your editorial.

How in the world (universe) can we hope to survive as a race anywhere when we can't or won't take every step and make every effort to preserve our earthly natural environment?

Here at least, in the Commonwealth of Pennsylvania, thanks in large part to the PFC, there is a concerted effort to restore and maintain the natural order of things.

Please, Mr. Travis, join us in this fight on earth and direct your vehement, vitriolic verbiage at those who would suffocate us in their effluviam; not at those who are committed to saving your life so that maybe, someday you or your descendants will populate the universe.

Sincerely,
JOHN P. BERGEVIN
Fisherman of Pennsylvania
Citizen of Earth



MEALS from the CREEL

by Arthur J. Michaels

FIRE UP YOUR GRILL SKILLS

"In 1978, there were approximately 59,000,000 barbecuing households in the United States," reports Arthur W. Seeds, Executive Vice President of the Barbecue Industry Association in Oak Brook, Illinois, "and that's 77% of all U.S. households!" With an average of 1.62 grills per family, the popularity of charcoal cookery is on the rise. So as the weather warms, now is the time to get your grill going. Here then are the answers to ten questions to help you hone your fish barbecue grill skills.

1. How can I decide the best kind of grill to buy for my family's barbecue needs?

With almost 200 individual grill types available these days, selecting a grill can be confusing. Consider the size of a grill first. A double hibachi is fine if you're cooking for three or four people, but a larger grill, like a wagon type, is better is you're cooking for four or more.

Along with grill size, you have to consider how much food you'll cook. For most fish cookery, any kind of grill works well, but if you're going to cook fish on a grid over a charcoal bed of foiled potatoes and corn, you'd better stick with a larger grill. Think about a grill with a hood, too, for your fish cookery. You can hold in the heat better with a hooded grill, and this will give your fish a delicious smoked flavor.

One of the newest types of grills is the covered square cooker. This kind of grill represents the most significant design change of grill manufacturers in the last ten years. One advantage of a covered square cooker is that it keeps the smoke and flames confined, which enhances the flavor or your barbecuing fish.

A covered square cooker also overcomes many weather problems. Even though it's May, you could still have some chilly days in some parts of Pennsylvania, but a covered square cooker lessens the effects of chilly outside temperatures and blustery cold winds on cooking barbecues. Your charcoal briquets will light quickly in a square cooker, too, even when temperatures are relatively low and cold winds blow.

There's even a grill made especially for a boat. It consists of a pan for charcoal under a grid for cooking. You attach it to the edge of the boat deck and it swings out over the water.

2. What are charcoal briquets made of?

Charcoal briquets are made of wood waste products, such as tree bark and saw dust. Pulverized and mixed with other ingredients for improved quality, they are treated under high heat and shaped hydraulically into the familiar briquet square.

3. If I run out of briquet lighter fluid, can I use some extra gasoline from my lawn mower?

No! NEVER, NEVER USE GASOLINE OR KEROSENE TO LIGHT A CHARCOAL FIRE!

The safety factor is your prime consideration. Gasoline is too volatile a lighter. When you pour it on briquets and try to ignite it with a match in the usual manner, it may explode, rather than burn evenly. Kerosene, on the other hand, is not processed in a way to make it usable as a charcoal lighter. Kerosene doesn't completely ignite and burn up, so your barbecued fish will taste like kerosene or diesel exhaust!

Charcoal lighter fluid is a processed petroleum product, like gasoline and kerosene, but it is refined further to get rid of many impurities and odors so that it lights briquets more cleanly and burns off more thoroughly.

4. What's the best way to light a charcoal fire?

First, pour the briquets in the pot and pile them into a pyramid. When you ignite briquets this way they'll get red-hot more quickly than if you just lay them out flat. Stacked briquets encourage better air circulation, too, so that the briquets burn evenly.

Let a jelly or liquid fire starter soak into the briquets for a minute or two before igniting. When you light them, use several matches to ignite at least two sides of the pyramid.

NEVER SQUIRT LIGHTER FLUID ON BURNING CHARCOAL BRIQUETS!

The briquets could ignite into a blazing fire while you're pouring, and the flame could travel with lightning speed up the line of pouring liquid and explode.

Impatience may tempt you to squirt more lighter fluid on the burning briquets, so be patient. It takes about a half-hour for those briquets to be ready for cooking. It's a good idea to light the briquets first in your fish barbecue preparation. Then while the briquets get hot, you can prepare the meal for cooking and set your table.

Here's how to tell if your briquets are ready for cooking. First, in daylight, the pyramid of briquets should appear gray, coated with a light cover of ashes. At night, briquets are ready for cooking when they're glowing red. If you spread your hand above the briquets at cooking level, and you can't keep your hand over the heat for more than two or three seconds, your fire is ready for food.

Consider also the amount and size of your fish in lighting the grill for a barbecue. If you're cooking small fillets or small whole fish, you'll need fewer briquets than you'd need for barbecuing a whole lunker, like a whole dressed pickerel, pike, or several steaks from a large bass.

On the other hand, a cold weather barbecue calls for a different plan. If you're barbecuing this month on a day of marginally seasonal weather, use more briquets than you'd use on a warm summer day, and allow a little more time for the charcoal briquets to get hot.

Different brands of briquets burn at different speeds, too. Buy small packages, usually five-pound bags, of several different brands, and decide for yourself which brand burns best to your liking.

5. After cooking, should I leave the cooking grid on the fire?

No. Clean your cooking grids regularly after each barbecue. Just immerse them in ordinary dishwater and clean them as you would any kitchen utensil or cookware. All cooking grids should be brushed lightly with vegetable oil prior to each use. This oiling prevents fish from sticking to the grid during cooking.

With regular use and with the alternating of high heat and regular temperatures, your cooking grids will become black with encrusted fats, carbon, and dry material from food if you leave them on the fire. Various cleaning agents are available at retail food stores and hardware stores that are very effective in cleaning your sorely neglected cooking grids. Following their use, wash the cleanser off thoroughly.

6. What if my grill has broken pieces or if it's missing parts?

Most grill manufacturers include a parts list and ordering information with grills, so first try to replace broken pieces by contacting the grill manufacturer and ordering new parts. If parts are unavailable, any repair should be made at local shops. A minor welding job might be in order for broken pieces. However, it might be more convenient to buy a new grill instead of hunting for replacement parts.

7. What about grilling indoors? Isn't that dangerous?

If you have a fireplace, you can grill indoors. In fact, several manufacturers are now making grills especially for fireplace use. Still, the danger of indoor grilling is inadequate ventilation. Burning charcoal briquets give off carbon monoxide, so you must allow the smoke and fumes to escape.

Before you light your grill in your fireplace, make sure it's well inside the burning area, and be certain that the chimney flue or damper is open. When you're cooking is completed, let the briquets burn out, leaving the flue or damper open.

Never use a grill where there is improper ventilation — in a trailer, camper, or tent, for example.

If rain puts a damper on your grilling outdoors, you could grill in your garage. Place the grill at the edge of your *open* garage door, and cook your barbecue as usual. Leave the big garage door open at all times to allow for proper ventilation.

If you're an apartment dweller, a terrace is a fine place to set your grill. However, use a heavy, clunker-of-a-grill to lessen the chances of your grill tipping over. Some manufacturers make grill attachments for use on balcony railings. If your fish barbecues will be mostly on an apartment balcony, you might consider purchasing this grill attachment.

8. What accessories are best for fish barbecuing?

Long-handled tongs are a must. These will let you turn fillets, steaks, or whole fish on the grill without their flaking and falling into the bed of coals. Gloves will help, too, especially when you're engineering a meal for many. You need to keep your hands over the red-hot fire to turn and inspect each bit of food, and gloves or mitts protect your hands from the heat of the fire.

Consider also flat, hinged wire baskets for cooking whole fish. These work well for cooking whole, dressed lunkers. After you dress a whole walleye, for instance, brush the fish inside and out with lemon juice and butter, place it in the basket, and you can cook it, turning it every few minutes without having the thing fall apart on you.

Hinged baskets come in different sizes. Of course, you'll want two sizes for the barbecues: small, for holding several small fish, and large, for barbecuing that lunker.

9. When I cook a variety of fish, hamburger, and chicken on the grill, how can I prevent flare-up?

If you're just cooking fish, flare-up is no problem. It's usually caused by meat fat dripping onto the hot coals. To prevent flare-up, raise the food higher over the flame, or spread out the coals. Another way to prevent flare-up is to remove the cooking grid with food and sprinkle a little water on the coals. Removing the grid with food will prevent ashes from coating your food.

10. How can I prevent fish from drying out on the grill during cooking?

Barbecued fish will become dry and rubbery when it's overcooked. Barbecued fish will taste delicious — juicy and tender — if you coat fillets, whole fish, or steaks with sauce, wrap them in aluminum foil, and place these "packages" directly onto the hot coals. Placing wrapped food directly onto hot coals like this is called "ember cookery."

Prepare your catch, following the instructions carefully on pages 3–7 of the ***Pennsylvania Anglers Cookbook***(available for $2.50 from the Pennsylvania Fish Commission, P.O. Box 1673, Harrisburg, Pa 17120 — Checks or money orders, please). Then, try the sauce recipies on pages 157–159. Coat your fish generously with your favorite sauce, and wrap them in aluminum foil. Place them on hot embers, turning with tongs every few minutes. Fish is ready for the table when it flakes with light pressure against a fork.

Those Crazy People . . . Fishermen



Part IV — Of Food & Fodder

by E. W. Fisher

A long, long time ago, before there were fishing magazines, plastic lures and extended trout seasons, Man was given a brain with which to think and a mouth into which to place food.

Not since that day has he ever used the brain to think about what he puts into the mouth. If he could set it on the rock in front of him and it did not fly, crawl, swim, or run away, he ate it. And if it did try to make a quick exit, he bashed it with his wooden club and then ate it. He wasn't choosy.

Fishermen aren't choosy either. Anything that will satisfy both of the following criteria is acceptable. 1. Will it fill the old gut? — 2. Will it taste good out in the middle of the lake? So fishermen immediately eliminate such beneficial, nutrient rich foods as wheat germ ("Ain't no germ big enough to fill *me* up.") and yogurt ("Yogurt don't taste good *nowhere,* man, especially out in the middle of a lake.") in favor of those foods he enjoys most, i.e., salami and onions on toast with horseradish, peanut butter and sardines on bread, and, Heaven help us, *potato salad.*

Do not think that the fisherman chooses his menu on the basis of what is easiest to prepare. Great pains are taken with even the simplest of dishes. Salami must be sliced paper-thin. He will pile on an entire ream of it, but it must be sliced paper-thin. The horseradish cannot be spread in a thick layer on top of the uppermost slice of meat; Oh no, it must be applied sparingly to each slice and the next slice placed on top, like bricks and mortar, so the creation doesn't come apart during a battle with a two-pound smallmouth at lunchtime. The peanut

butter applied to the bread in a peanut butter and sardine sandwich must be of the creamy variety, never chunky, for chunks in a peanut butter and sardine sandwich could absolutely destroy the delicate, smooth quality of the sardines, even though the main purpose of the peanut butter is to hold the sardines in place and keep the fish juice from soaking through the bread and making everything soggy.

These two sandwiches (two of each) are generally prepared the night before the expedition and stored in the refrigerator next to Mrs. Fisherman's veal cutlets and T-bone steaks. Witness the following.

"Henry! I thought I told you to get your bait out of my crisper tray! You know I thaw my meat in there."

"That's not my bait, Martha, it's my lunch . . . peanut butter and sardines. Made it myself so I wouldn't have to bother you."

This brings to mind a question which has bothered me for a long time. Why are folks so sickened by peanut butter and sardine sandwiches? Have you looked at a peanut butter and *jelly* sandwich lately? They're not much prettier.

Anyway, in the morning (at four o'clock, when all *good* fishermen arise), the most important of all the angler's paraphernalia is brought out of storage — his cooler. And into the cooler, under the dim light of the half-watt night light in the hall, goes everything that will fit. In goes the ice, the water bottle, the sandwiches all wrapped up in waxed paper so all that exquisite flavor doesn't escape before lunchtime . . . *Oh-Oh, that one salami and onion sandwich don't fit!* and so the ingenious fisherman, never to be beaten, eats salami and onions on toast with horseradish for breakfast. Tell me now, what better way to start off the day?

Something is missing, you say? Something I've been telling you is absolutely essential? The potato salad?

Fear not, my friend, for the fisherman is always in control when it comes to his potato salad. This mystical, magical mixture does not keep to well in a cooler, and besides, if you put it in the cooler you'll be using up some of the space reserved for your four carefully prepared sandwiches. The answer: buy the beautiful stuff at an all-night deli somewhere. The fisherman knows all the places. There's one such store in every town. When you get it out to the car, open the cooler and make room for it by eating another sandwich.

Depending upon how far the fisherman lives from the lake or creek and how busy the potato salad counter in the all-night deli was, he will usually get to his destination shortly before six, or maybe a little earlier. The sun will not be up yet, and he will have to work in the light of his own headlights to get the boat down off the top of the car, drag it down to the water's edge and slide it in. Then he'll have to climb back up the bank through the poison ivy (which he can't see in the dark), unload all his equipment from the trunk and pack it down over the hill and into the boat, and then climb back up to turn off the headlights. Along about this time, freezing, maybe a little wet around the pantsleg, he will realize that he forgot the coffee, and the predawn silence will be rent asunder by the familiar cry of, "Aw, @#$%!"

Such a vocal outburst will surely dry the throat, and by now the fisherman is very cold, so rather than drinking the water down there in the chilly wind, he will carry the cooler up to the car and run the engine while he drinks his water, sitting there warming up with the heater on. And, what the heck, after all those trips up and down the bank he could use a little nourishment, and since he's sitting there in the warm car, and since the cooler's handy, he'll eat another sandwich, wash it down with some more water.

It's dawn through the trees, and down at the water's edge the bass are feeding all around the beached boat and all down the far shore. And they're not small bass. The fisherman screws the lid onto the water bottle, wipes his hands on his pants and clambers down the bank through the poison ivy (he can see it now, but he's in too much of a hurry to care) and jumps up into the boat.

He fishes all morning. The bass are hitting, and every other cast brings a legal bigmouth. He catches so many he has to start letting them go, and he's working, cranking on the reel, pumping the rod, sweating in the morning sun. Tough work, this fishing. He's a mile and a half up the creek now, and it's coming up on half past eleven, and the old gut says it's time for lunch. *Ah yes, lunch!* He's worked hard, and he deserves some time off to eat. So he puts down his rod, washes his hands in the water over the side of the boat, and goes to open the cooler.

"Aw, @#$%!"

Danged if he didn't leave the cooler in the car in all the excitement of getting out onto the creek while the fish were still feeding. What a blankety-blank stupid blankety-blank thing to do!

Well, what can he do about it? He'll just have to fish a little while longer, and then go back to the car and get the cooler. He baits up and fishes for a time, but it's midday and the fish just won't bite. He moves a little farther upstream, closer to the big riffle. Still nothing. But now he's really starved. He can almost smell that salami two miles up the creek. So he fires up the motor, puts the throttle to the wall, and back to the car he goes. Out of the boat, up the bank, through the poison ivy. He's to excited he can hardly get the key in the lock. *There! At last!*

No, it's much too hot on that side of the creek. It would be a much nicer meal if he ate over on the far shore, under that big willow tree. Yes, over there. But after high-tailing it down the creek and climbing up the bank, he needs a little fuel right away; so he grabs a sandwich and eats it while he carries the cooler down to the boat. A pull on the starter, and the motor roars, and across the creek he goes, putting to shore under the big willow tree, starved and thirsty, and totes the cooler and his handy-dandy folding chair up the bank. He bends over and hurriedly lifts the lid off the cooler.

"Aw, @#$%!"

Danged if he didn't eat all four blankety-blank sandwiches already, and drank all the blankety-blank water! Blankety-*blank!*

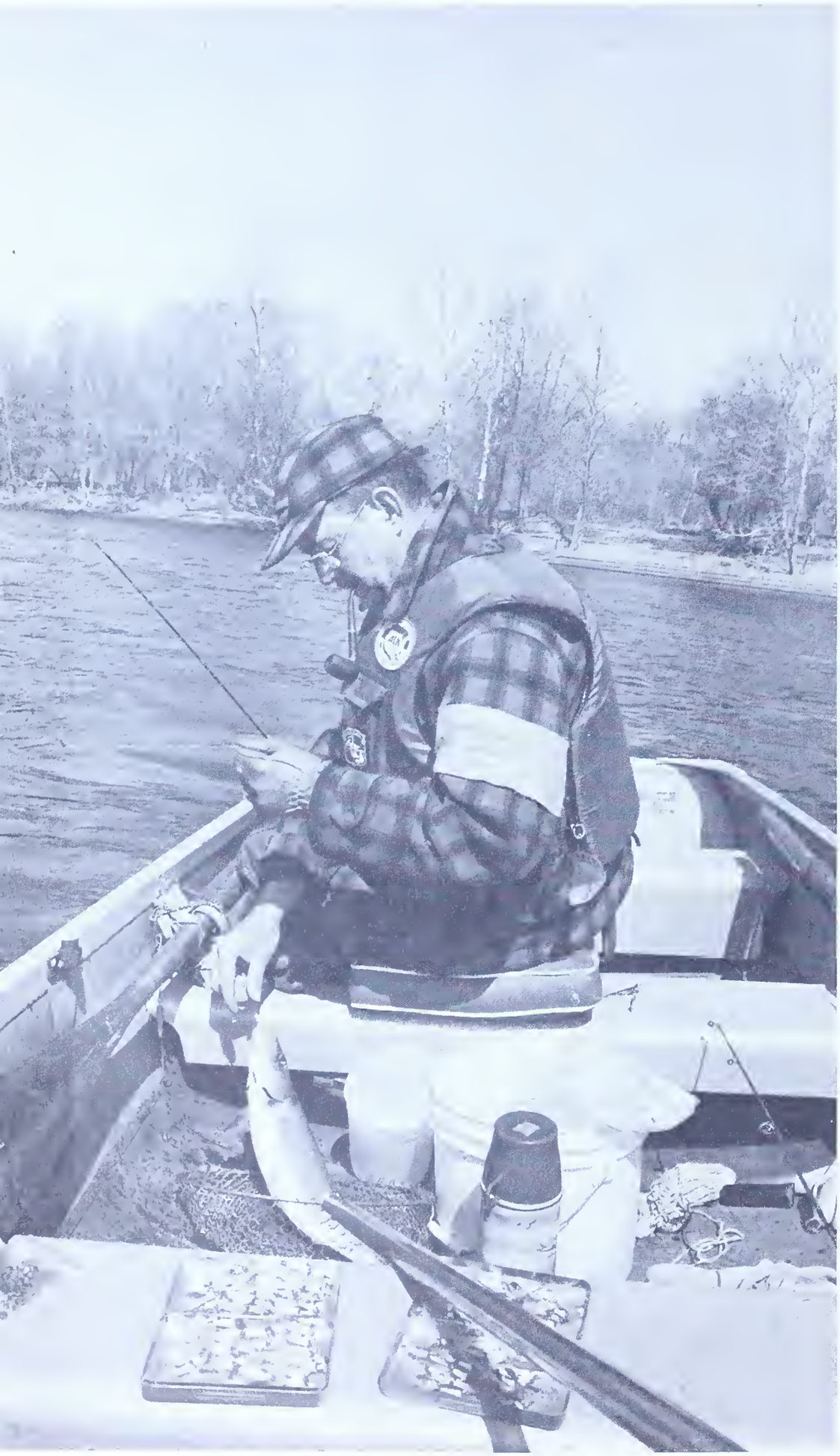
Oh well, at least the potato salad is still there. He takes it out of the cooler and removes the lid, then he unfolds his handy-dandy folding chair; and holding the lovely pot of potato salad in his hand, he positions his backside over the chair and sits down, and the chair promptly folds up and dumps him in a heap on the ground.

Spill it? No way. During the fall, the potato salad was held upright at all times. You see, when it comes to potato salad, a fisherman, is always in complete control.

Now eat it up, Pal. You deserve it!

To Plank A Shad . . .

by George E. Dolnack, Jr.



Max Hesselgesser, of Ambler, boats an American Shad on the Delaware — the first step in the preparation of a traditional planked shad dinner.

Each spring, an increasing number of fishermen on the Delaware River pursue what is perhaps the most underrated fish in the state, the American shad. These anglers, to a man, will tell you that the next best thing to catching this member of the herring family is eating them.

The Moravians who settled in Bethlehem, Pennsylvania, were aware of this fish's fine eating quality when they held a shad dinner in 1774 for 125 people to mark the opening of an addition to their community's Single Sisters House. That event was celebrated by the clergy, dignitaries from Bethlehem, and one hundred of the women. The method used to prepare those shad was called planking.

In planking, a slab of hickory or oak is used. The fish, after it is split, is secured skin side down to a preheated plank. The plank is then propped up in front of a fire and constantly basted with a piece of fat pork held above it on a switch. The finished product is truly a gourmet's delight.

Last April, for the first time in nearly 200 years, the air of downtown Bethlehem was filled with the mouth-watering aroma of baked shad once again.

The occasion was the first annual shad festival sponsored by Historic Bethlehem Inc., Northampton County Visitors Council, Bethlehem Area Chamber of Commerce, and the Delaware River Shad Fishermen's Association. Held in the 18th Century Industrial Area along Monocacy Creek, some 400 visitors turned out to feast on planked shad, baked potato, watercress salad, fresh baked bread, and hot and cold mint tea.

To cook the shad, a charcoal pit 30 feet long, 3 feet wide, and 10 inches deep was constructed with a double

After being split, the shad are stripped with bacon and nailed skin side down on a pre-heated white oak plank, right. The shad are then cooked by placing them along the edge of a 30-foot charcoal pit. They face the glowing coals at about a 30 degree angle and cook for half an hour before being turned end for end to cook the upper portion. Total cooking time: one hour.





row of patio blocks running down the center. Potatoes were placed on the cement blocks, the pit lined with glowing charcoal, and the planks preheated.

The shad required no special preparation prior to planking. They were split into two halves, placed skin side down on the planks, stripped with thick slices of bacon, and then nailed to the 15-inch by 24-inch white oak slabs. The planks were then propped up on the edge of the pit at about a 60 degree angle. After baking for half an hour, the planks were turned end for end (upside down) to cook the upper part of the fish for another 30 minutes. Total cooking time is about an hour.

Volunteers dressed in traditional Moravian attire served and helped prepare the food. Shad for the festival were contributed by local fishermen and members of the Delaware River Shad Fishermen's Association.

Visitors to the shad festival were also treated to demonstrations of shad dart tying, net making, shad smoking, and fly casting. Tours of the 1761 tannery, 1762 water works, and the springhouse were also included on the festival's agenda.

This year's shad festival will be held on Saturday, May 12. For further information, write to: BETHLEHEM CHAMBER OF COMMERCE, 11 West Market Street, Bethlehem, Pa. 18018.

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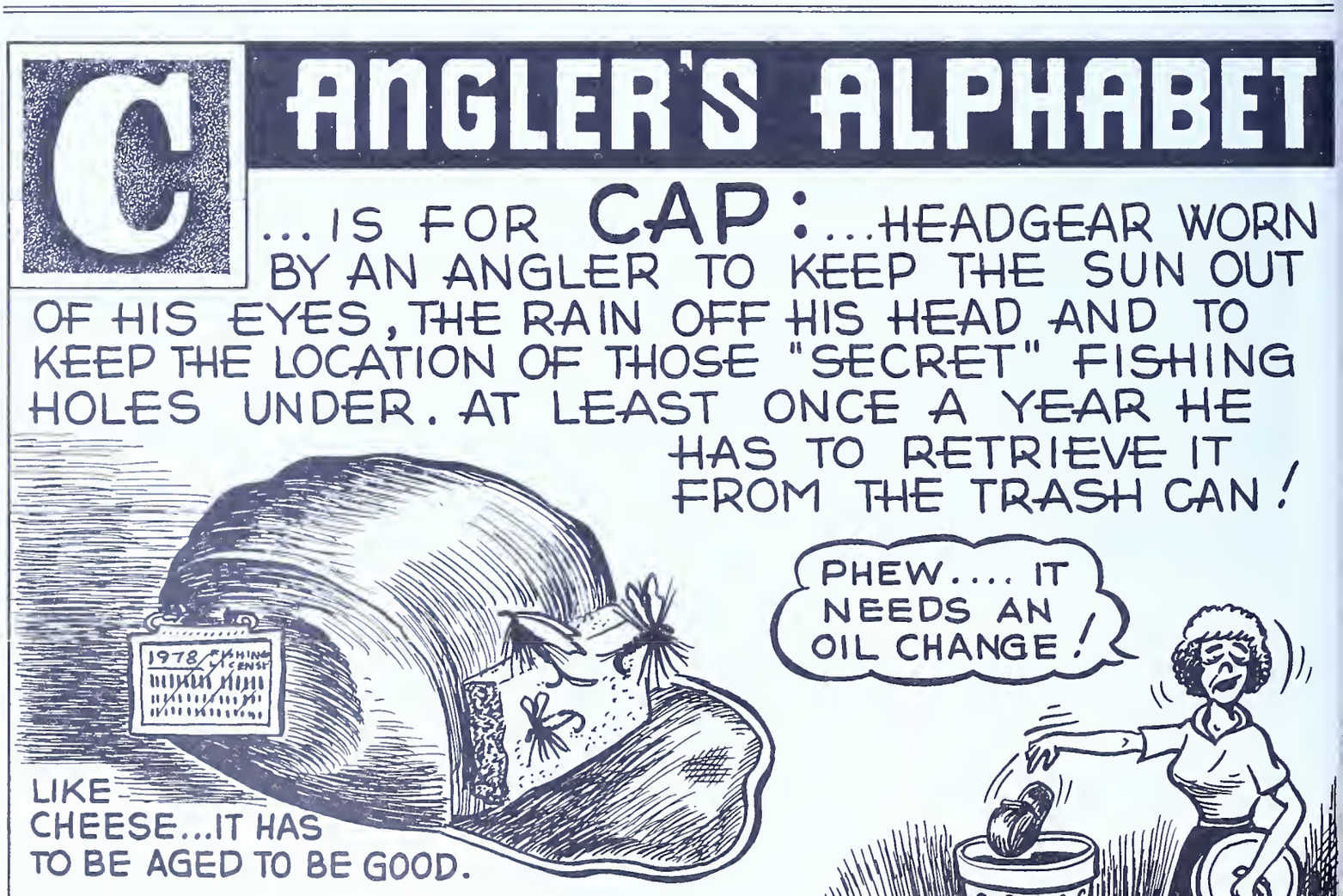
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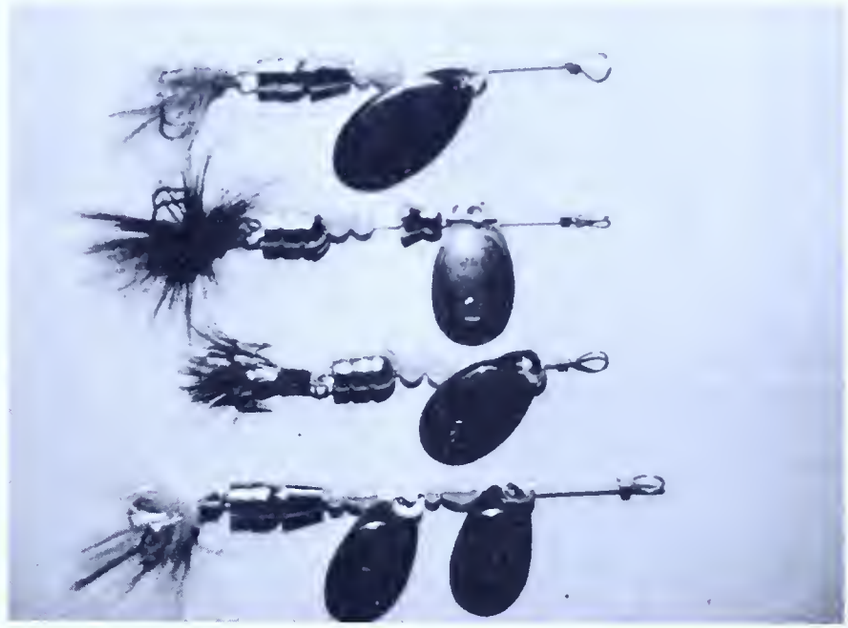
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Trout Fishing with Homemade Spinners

story & photos by
Alex J. Danchanko, Jr.



Anglers who have experienced the tranquility of a peaceful meandering trout stream, presumably can bear witness to the frustration often involved in pursuit of the wary trout. A natural bait, fly, or artificial lure that can consistently take trout, under all conditions, is virtually nonexistent. However, I would like to share my knowledge of an artificial spinning lure that will produce amazing results. The lure I am speaking of is just simply a homemade spinner. My angling success with this lure is attributed to John Knee of Johnstown, Pa. John is an excellent angler and master rod builder as well. Seven years ago he introduced me to the basic spinner pattern on which I have expanded to create various original patterns.

The construction of the spinner is easy and the only tools needed are wire cutters and a crimping tool (needle-nosed pliers may be substituted). The necessary materials can be ordered from one of the many reputable firms advertised in outdoor magazines or from a local sport shop. Prices on materials differ, depending on the manufacturer, but you should be able to construct your spinners at a cost of less than thirty cents apiece.

If you're ordering from a firm for the first time, I would suggest that you order a small quantity of materials, make a few spinners, and then test them to insure that they work properly. A spinner blade of poor quality will not spin properly and a clevis of poor quality will impair the action of the blade. I might also suggest that you deal with a company offering a guarantee on their materials. The wire shafts can be purchased completely preformed or you can form them yourself by purchasing coiled wire. The overall length of the shaft should be at least three and one-half inches and the wire diameter between .024 and .030. I like to use wire diameter of .024 as it is pliable, easy to work with, and can easily be straightened if it is bent during construction or while fishing.

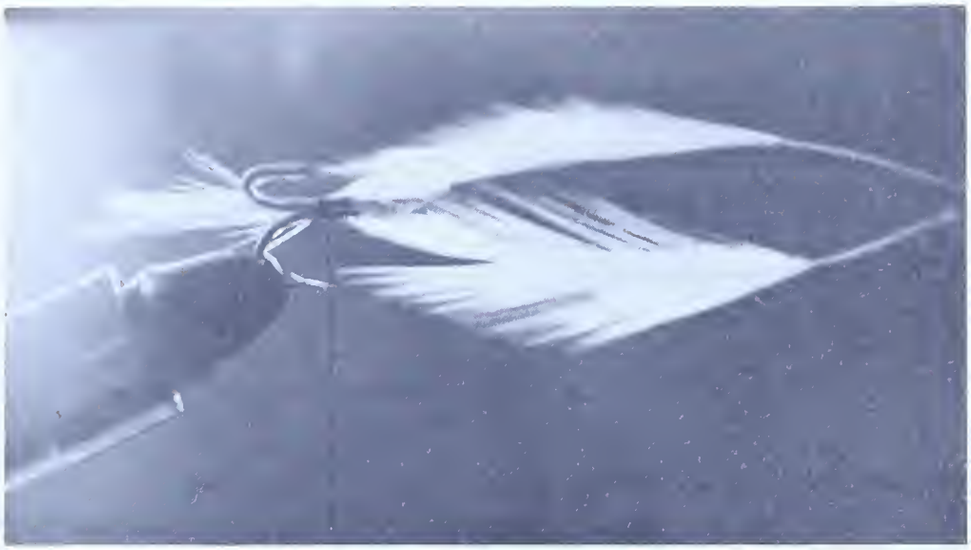
Clevises of good quality are recommended, since they are important to the action of the spinner blade. They are relatively inexpensive so it is worthwhile to spend an extra few cents for better quality.

Bodies and spinner blades of silver, bronze, or brass, in any size or shape, may be used at your discretion, although a general rule would be to balance smaller bodies and hooks with smaller blades and vice versa. Beads of any shape, size or color may also be used, but red fluorescent round beads, in a four millimeter size, will serve well on any pattern.

Treble hooks in sizes 8 and 10 are recommended for trout and they can be left bare or dressed with feathers and bucktail. One should exercise caution when working with the exposed points and barbs of the treble hook. A suggestion, that will eliminate the risk of injury, is to cover the points and barbs with tape or a plastic treble hook guard, available in most sporting good stores or tackle shops.

The spinner is very effective during the early season, when cool weather and low water temperatures often prevail, but I have taken trout with it throughout the season. The method that obtains the best results for me, is an upstream cast, followed by a deep, slow, retrieve. The cast should be made quartering upstream and the line retrieved fast until you feel the spinner pulsating and bumping the bottom, when this occurs, continue reeling at a slow steady pace. Fish the spinner at the edges of a current where fast and slow water meet or around boulders, rocks, and obstructions. Try several casts to a likely holding lie before moving on. A cast with the spinner placed in just the right position often means the difference between success and failure. At times trout will hit this lure very hard, but it is always a good idea to keep hooks sharp with a whetstone or hook hone. Sharp hooks will help to insure penetration, thus reducing the number of lost or missed fish.

The homemade spinner is not exclusively a trout lure, it is also effective on walleyes, smallmouth bass, panfish, and northern pike. A new adventure in angling awaits you, so "give it a try," and I'm sure you'll be pleased with the results.



STEP ONE — Place the treble hook in a vise and wind in 4/0 tying silk at the bend. Select two large hackles of any color and tie in one at a time, on opposite sides of the hook shank, so that the tips are extending about ½ inch beyond the bend.



STEP TWO — Wind the hackles individually to the eye of the hook and secure behind the eye with two or three turns of silk. After both hackles are secured to hook shank, trim off excess and make several turns of silk around the remaining stems. Whip finish or half hitch and apply a heavy coat of clear lacquer or vinyl cement. (NOTE: Steps one and two can be eliminated, since it is not necessary to dress the treble hook.)

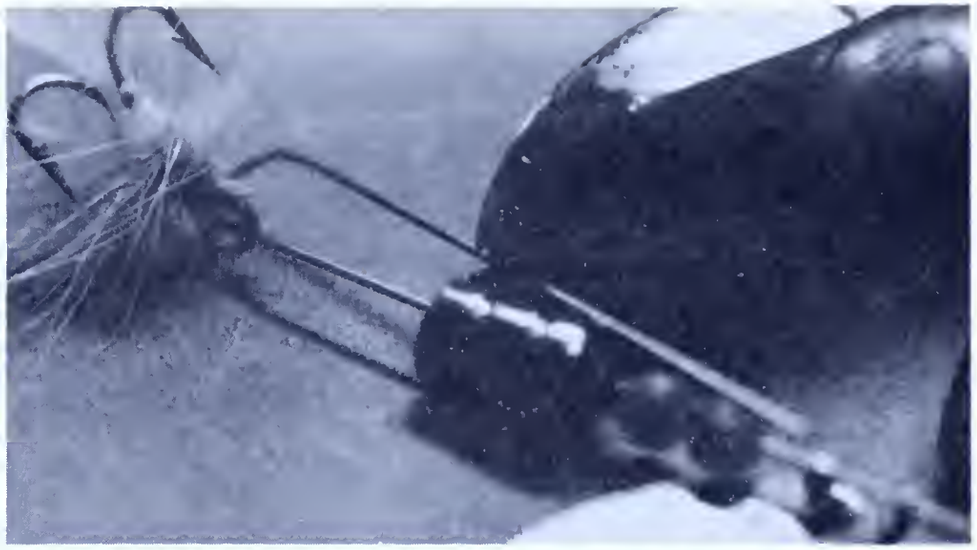


STEP THREE — Slip clevis through the hole in the spinner blade and slide both on the wire shaft in the manner illustrated.



STEP FOUR — Slide beads, body, and treble hook, in this order, onto the wire shaft.

STEP FIVE — Push body, beads, and blade tight against the loop at the top of the wire shaft. From the bottom edge of the spinner body measure down approximately one and a half to two times the length of the body. With crimping tool or needle-nosed pliers, bend the loose end of the shaft back up to the side of the body.



STEP SIX — Force loose end of wire shaft back up through the hole in the spinner body as illustrated.

NOTE: The hook points and barbs should be covered with tape or a plastic treble hook guard, to prevent injury while performing the bending operations in Steps Six, Seven, and Eight.



STEP SEVEN — With crimping tool or needle-nosed pliers, round off the wire at the bottom of the spinner body, where the wire meets the treble hook, being sure to leave enough space for the hook to swing freely.



STEP EIGHT — With crimping tool or needle-nosed pliers, bend the loose end of the wire, that was pushed up through the body, down over the top edge of the spinner body. With wire cutters, clip off the excess wire close to the top edge of the body.



TAYLOR-MADE LURES — Part II

by Don Shiner



Frank Taylor carried a chest full of his homemade plug creations aboard his boat and has definite preferences for varying fishing conditions.

Part 1 of this 2-part interview with Frank Taylor covered his techniques for making homecrafted plug-type lures. This second interview actually takes place on the shores of a lake where Taylor and I are members of a party of six fishermen seeking walleyes and pike. The interview covers various phases of fishing with Taylor's homemade plugs for these gamefish.

Shiner: Let's begin this second interview with your assessment of the overall performance of your wooden plug lures on pike and walleyes. You have used your Taylor-made lures many times previously, but on this lake, in your judgement, how did they perform?

Taylor: The plugs worked as they were supposed to. They functioned well. But since most of our fishing was of a deep water type, the plugs weren't as effective on pike as I would have liked. However, walleyes which we found feeding on numerous shallow rocky shoals, did seem to like the medium size jointed plugs, mostly of red and white patterns. I was very pleased with that.

There are times of the year when I think the larger jointed plugs work extremely well on pike. That is during the fall, in colder weather, when pike are found in more shallow water. The larger, more buoyant plugs are the lures to use at that time.

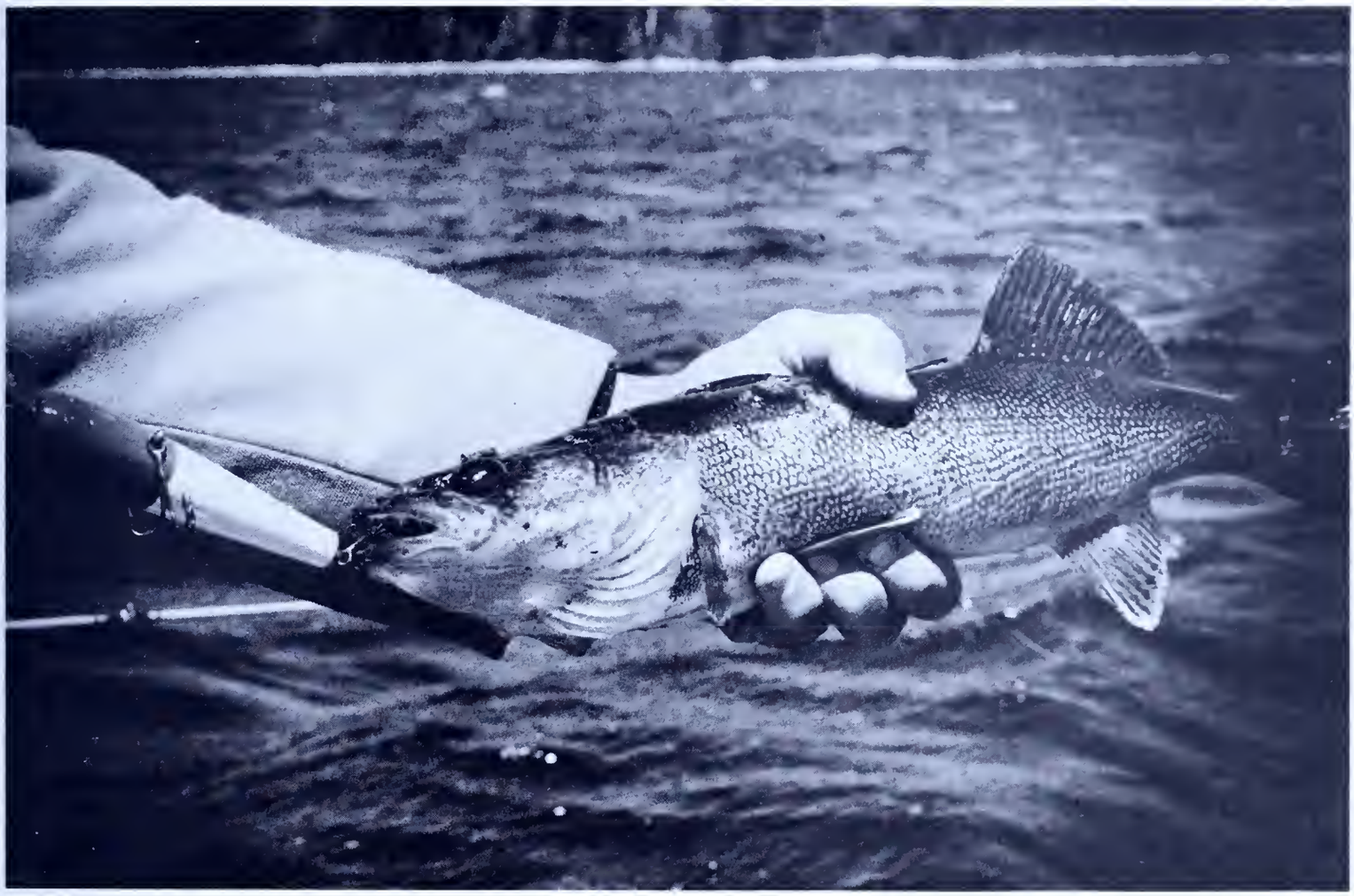
Shiner: Do you prefer to cast or motor troll your wooden plugs?

Taylor: It depends to a great extent on the type plug I'm using. Casting is pretty well out of the picture when using the large 6- to 8-inch jointed plugs. It is better to motor troll them, letting out 50 to 60 feet of line, and with a brisk trolling speed send them down seven or eight feet deep.

The medium size jointed plugs can be cast, but they, too, have a tendency to tangle on the line as they twist and turn in the air. However, the smaller, nonjointed lures are easily cast, and I like to cast them. But of course, all size plugs are excellent lures for motor trolling.

Shiner: Do you use lead weights to get them down in say, 20 feet of water?

Taylor: The larger, 8- and 9-inch lures are very buoyant and will only go down two to four feet. I use lead sinkers, up to ¾ or 1-ounce size to get them deeper. With weight, they work well.



Taylor found walleyes showing a preference for his medium size jointed models, but took "solids," as well.

Shiner: Have you observed many northern pike following your plug — as muskies sometimes do — but reluctant to strike?

Taylor: We did observe several northern pike follow the lure in, but not strike at it. They seemed to challenge the lure, but then let it go at that.

Shiner: What lure color appears to have an edge in dark, stained water?

Taylor: The red and white lure seemed to show up well in this darkly stained water, and walleyes, especially, seemed to like this pattern. Fluorescent orange and the sucker patterns all seemed to work well too.

Shiner: Where do you look for big pike in a lake . . . weed beds, deep, open water or shorelines?

Taylor: It depends on the time of year and temperature of water. If the water is warm you can expect to find big pike in deep, open water. At that time, some of them do come in to shorelines, or to edges of floating bogs during the early morning and later afternoon feeding periods. Generally you will find northern pike where their feed is found. If you find schools of small walleyes, perch or shiners in any of these places, there is where pike are found. Later in the fall, when water cools, pike can be found anywhere along shore.

Shiner: When checking out a particular area or bay for pike, how much time do you spend in that area? Let's say a particular cove is not producing. How much time do you spend there before moving elsewhere?

Taylor: Well, this depends on the size of the cove, and perhaps the contour of the bottom. But I think that if you haven't gotten any action after 15-minutes, move on. I like to cover a lot of territory in a lake; and, for me, I think it pays off.

Shiner: Do you prefer to troll your plug lures deep, close to the bottom in 25 to 35 feet of water?

Taylor: I like to troll at the level that I think the fish are found. In hot weather, when fish are deep, I like to troll deep. If it is cooler weather and they are up near the surface, perhaps sunning themselves, that's where I troll the lure.

Shiner: Have you ever tried running an attractor in front of your plugs? Attractors such as big spinners or dodgers?

Taylor: No I haven't. At this time I can't say that I have ever used any attractor device. I depend entirely on the action and color of the plug to attract them. Most large jointed plugs have a very attractive and appealing action that needs no other device to get the attention of pike.

Shiner: Do you have any techniques for making a pike that follows your plug grab the lure?

Taylor: Yes, if you do see a pike following your plug, try to retrieve faster to make it appear that it is trying to elude the pike. However, if it has hit and missed the plug, try to swirl the lure . . . jig it in the water, or use a Figure "8" motion which sometimes gives good success.

Shiner: Do you think that human scent on plugs affects pike?

Taylor: I have strong doubts that any scent on lures has any effect on pike. I have operated the trolling motor for many many hours while friends in front of the boat are casting. I am sure





Strike! A pike grabs one of Taylor's homemade plugs after less than ten minutes of trolling and fights all the way in to the boat and net. Taylor enjoys catching them on "homemaders."

that my lures acquire an oily, gasoline odor from my hands, but I often catch more pike than the others in the boat. Therefore I don't think that scent has any significance on pike. There is some thinking, however, that scent may play a role in bass fishing, and likewise with walleyes.

Shiner: You have fished for Amur pike in Prince Gallitzin State Park located in central Pennsylvania. What type plug that you make works well with this variety of pike?

Taylor: I have fished there on one occasion and a plug that simulates a sucker or perch might be effective. I did catch a small musky there on a red and white spoon trolled rather deeply near the breast of the dam. On this occasion a heavy rain storm marred our fishing. Our time ran out before I had a chance to experiment with my plugs like I would have liked to. I intend to return there, perhaps later this fall, and motor troll some of my larger jointed plugs for these Russian pike.

Shiner: Do you find that big pike jump and escape by "throwing" your larger plugs more often than, say, spoons?

Taylor: I wouldn't make a judgement here, but perhaps the size and weight of the plug, if it is greater than that of a spoon, would give the pike an advantage. Overall, I find that big pike often take lures deep in their throat, and it is difficult then for them to dislodge the lure by jumping.

Shiner: What would you say is the greatest mistake a beginning pike fisherman makes when motor trolling a lure?

Taylor: I believe that most trolling is done at too shallow a level. In water 20 to 25-feet deep, most trolling is done in the first six or seven-feet. If the fish are not at a suspended level, they are missed by 15 to 20-feet.

I think that trolling speed should be varied. They should try fast trolling, some slow trolling, and some at a zig-zag course rather than a straight line. But different levels should be tried out. This can be accomplished by varying motor speed and using different size lead weights ahead of the lure, to reach down deeper.

Shiner: Have your own homecrafted plugs made pike and walleye fishing more exciting for you?

Taylor: Certainly. There is a real thrill in creating something out of wood and metal, and seeing it work. There is a great deal of satisfaction in knowing you designed it, and that it caught the attention of fish, making them strike at it. I would much rather catch one good fish on a homemade plug than five or six on a purchased lure.

Only this morning we ran into a school of walleyes near shore that repeatedly grabbed our bucktail jigs. After catching 3 or 4, I changed to one





"I would much rather catch one good fish on a homemade plug than five or six on a purchased lure," says Taylor. This pike obviously found one of his jointed plugs to be irresistible.

of my jointed plugs and continued to catch a few more walleyes. I had more enjoyment catching them on my Taylor-made plugs than on jigs.

Shiner: Have you had big pike, upwards of 10 pounds or more, pull out hooks from your wooden lures or do other damage that enabled them to escape?

Taylor: So far, no. On the larger plugs, I use screw eyes that are 1½-inches long, made of tempered brass, and they are buried deep into the wood bodies. Your line would break first. A 20-pound-test line would break before the screw eyes would pull out.

Shiner: Do you think that your plugs, or plug lures in general, do a good job imitating minnows which pike and walleyes feed upon?

Taylor: Yes, they not only simulate them in size, but they also do so in swimming motion and coloration. I think plugs come closer to imitating the real bait than do most spoons or flash baits of any type.

Shiner: What determines whether you use a big or small plug?

Taylor: Well, they say big lures catch big fish. I don't know if this always applies or not. Generally, if you are after big northerns or muskies, it seems to me that a big lure is the logical thing. However, for pickerel and walleyes, small to medium size plugs are more effective. I don't think there is much question about this.

I have caught many, many big walleyes and northerns on small bucktail jigs. The small size of the jig didn't seem to make any difference. They struck anyway. But if I want big, trophy size fish, I prefer the larger size lures.

Shiner: Before we conclude this interview, let's discuss the merits of a treble hook vs. a single hook. Could you design some plug that would use only single hooks to enable you to release more pike unharmed?

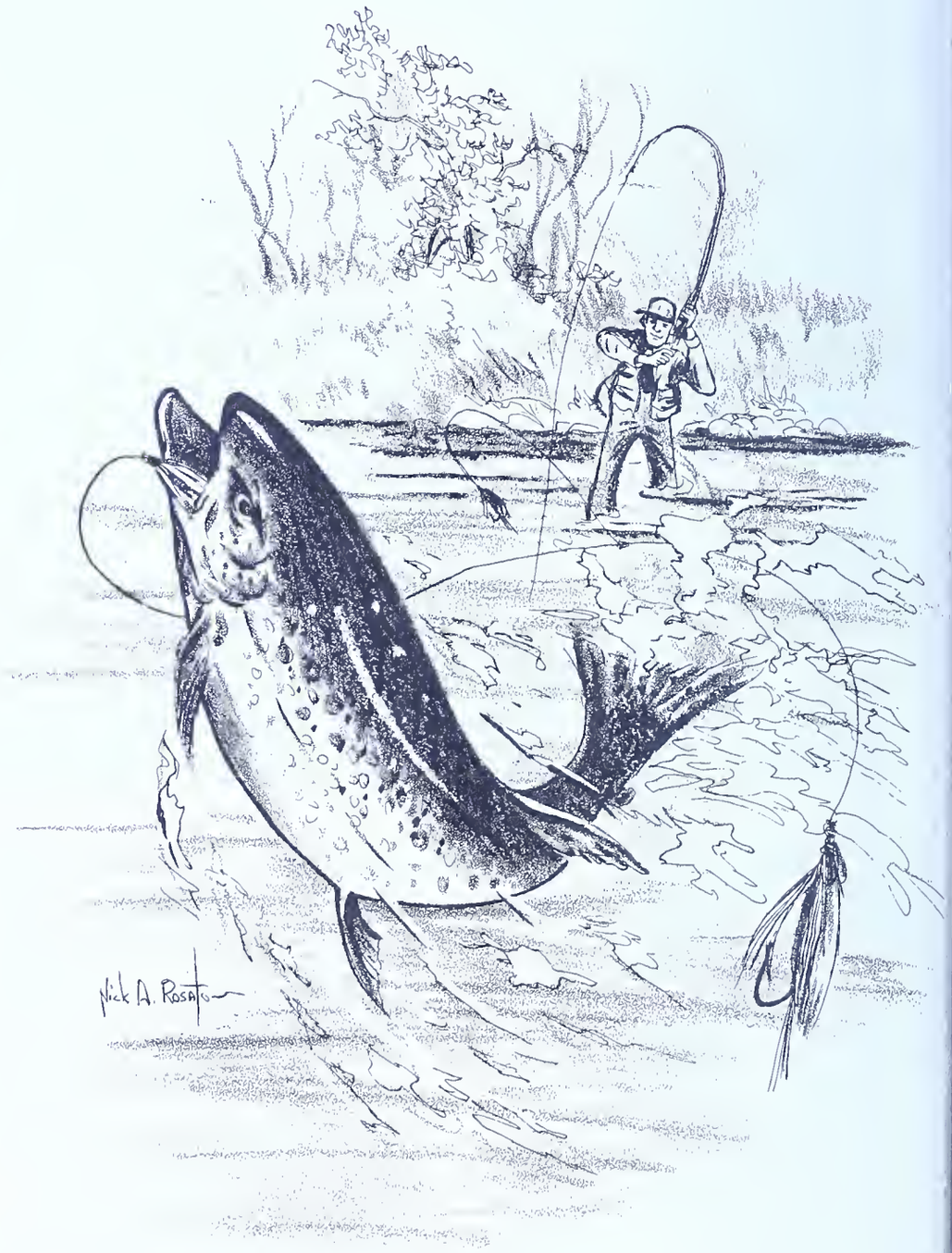
Taylor: There's no question that a treble hook, or a series of treble hooks creates a devastating situation for any fish that grabs that lure. Yes, that would be easily designed, and all that you'd need is to turn the eye (of a single hook) flat against the plug body and attach it firmly with a wood screw. The end or tail hook could be a single hook dangling from a split ring. This way you would have two rigid singles on the plug body, and one dangling in the rear. This arrangement would give you a good chance of catching any fish that would strike, and a better chance to release it unharmed.

I think that more and more single hooks will be found on lures in the future to facilitate releasing fish unharmed. This is important on waters that are having an increase in fishing pressure. In summary, I would say that my Taylor-made plugs work well. Those that other fishermen make for themselves will do the same.

When trout refuse to cooperate . . .

"Slip 'em a Mickey"!

by Theodore E. Kiffer



In fishing, as in any other endeavor into which an individual puts much time, effort, and thought, occasionally apparently unrelated events will suddenly coalesce, the light bulb of the cartoonist will flash in the brain, and a new theory will emerge. Or perhaps an old theory or technique will be reborn. Because of the high water and cold weather of this past spring, dry fly fishing had been greatly limited, and I was forced to spend much more time fishing wets. Then, too, Leonard Wright's *Fly-fishing Heresies* had encouraged me (and probably others) to give the wet fly another chance. Of recent years, the dry fly has been the darling of the trout-fishing fraternity and the emphasis has been on smaller and smaller dries, lighter and lighter tippets, and "fine and far off" has become the accepted doctrine. Arnold Gingrich's goal of "20-20-20" — catching a 20-inch trout on a #20 dry fly tied to a 20 foot leader — has become the unstated goal of hundreds of other fishermen. Actually, though, when a good hatch prompts a good rise, dry fly fishing is ridiculously easy and one can catch more fish in a shorter period than under any other circumstances.

To my great surprise and pleasure I found that my efforts of fishing the wet fly this year have been rewarded with solid strikes, good catches, and the pride of accomplishment that goes along with success — especially so when bait fishermen are not connecting. I have used basically only four patterns: the March Brown in size 16 and 18; the Leadwing Coachman in 14 and 16; the Muskrat nymph in 14, 16, and 18; and a Light Cahill nymph in 16 and 18. I normally use the Leadwing Coachman as the point fly (end of the line) and then tie one or two droppers about 4 inches long and spaced far enough apart that the flies do not tangle. I usually tie a muskrat nymph to one dropper and the lighter nymph or March Brown to the other. Quite often, the fish will hit one fly and ignore the others. When that happens, I change the flies and fish the productive one on both droppers and the point.

But trout, as anyone who has spent much time fishing for them well knows, are unpredictable creatures that can change their feeding patterns and behavior without warning and for no apparent reason. Early one morning I was enjoying spectacular success, raising and hooking a trout on almost

every cast on the Leadwing Coachman and the Muskrat nymph. On this particular occasion they seemed to prefer the Leadwing. Then, just as though a switch had been thrown breaking a circuit, the trout stopped hitting and I started experimenting, changing patterns, changing sizes, changing method of retrieve — but with absolute failure.

After perhaps an hour and a half of such fruitless effort I was about to quit when, in the changing light patterns of the rising sun on the water, I clearly saw some fifteen trout in one rather concentrated area. At least I could now see what their reactions would be. As I carefully worked a number of flies through this group of fish not one noticed my efforts in any way. Desperate circumstances call for desperate action, so I snipped off my natural-looking nymphs and wets and tied on a tinsel-bodied Mickey Finn streamer about two inches long. I cast it to the far edge of the area in which the fish lay; and, as I stripped the streamer toward me, *every* fish in the pool turned toward it, some darted toward it — two or three even followed it for a couple of feet — but none hit. After several more casts with the same result, I was tempted to change to a more subdued streamer but then the wheels started turning in my brain. For years, I had read of "attractor" flies, now I had one working for me. But — where to go from there?

Slightly over thirty years ago, my wife and I lived in Tionesta during the summer before I started to college. As the house was located just four doors from the bridge over the Allegheny River, I used to walk out onto the bridge every evening after supper and watch the suckers and carp and chubs in the shallow water. One evening in July I saw a nice smallmouth bass about 14 inches long lying directly under me and decided to try to catch him. At that time, the only fishing equipment I owned was a bait-casting rod and level-wind reel. I tied a short length of leader to the black silk line, tied on a number 8 bait hook, spaded in the garden until I found a fat, wriggly night crawler which I looped on the hook, and then trotted back out onto the bridge. From my vantage point some forty feet above, I carefully placed that nightcrawler right in front of the bass' nose . . . but he ignored it. For perhaps five minutes I manipulated that worm within a few inches of the fish but he showed absolutely no interest. At times I actually caressed his cheek with that worm but his only response was to move an inch or two to the side, or drift back in the current a short distance. As soon as I moved the worm he returned to the exact same position.

I finally gave up and, seeing a group of chubs perhaps five inches long lying some six feet to the side of the bass, decided to feed them the bait. As soon as I dropped the worm into their midst, they swarmed over it, grabbing it, and trying to swim away with it. This lasted but seconds, for that bass charged into their midst, seized the worm, and started back to his hold. I have thought about that bass a number of times and always reach the same conclusion: though he did not want that night crawler, he did not want any other fish to have it either, so he struck . . . and so I caught him.

The man who first introduced me to fly fishing, Carl Krantz, fished only wet flies. Though Carl was over eighty years old when I met him, he was still a most proficient fisherman. His favorite set-up consisted of a large streamer fly (Grey Ghost, Black Ghost, or a bucktail) tied to the point with a smaller winged wet fly tied from a four-inch dropper approximately a foot ahead of the streamer. In the water the small fly was then about eight inches ahead of the streamer. This arrangement worked exceptionally well for Carl, and he always caught fish. Then, too, he had the utmost confidence in these flies; for, as he told me many times, he believed that the streamer/wet fly combination looked to the trout like a minnow chasing an insect and the trout struck the wet fly to keep the streamer from getting it.

I do not know the statistics; but if memory serves me right, the great majority of the fish I netted for him were hooked on the wet fly. I must add that occasionally he caught a double — one on each fly — and at least once, one trout had both hooks in his jaw. Perhaps an accident?

As I stood there in my waders these and other scenes passed through my mind and I had to agree that old Carl was probably right. His streamer goaded the trout into striking the smaller wet fly just as the chubs attacking my night crawler had spurred the smallmouth into action.

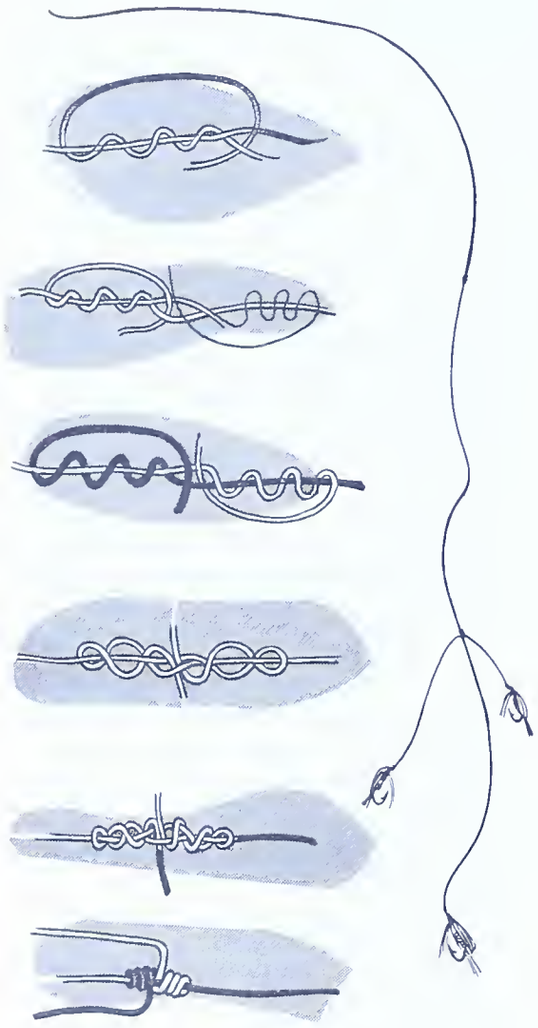
Quickly tying a 5X dropper onto the leader, I searched in my wet fly box for the smallest wet fly I could find. It was just a fuzzy little home-tied black nymph on a #20 hook. I adjusted the dropper length until the little black nymph was about four inches in front of the Mickey Finn streamer and cast across the pool. I waited a few moments for the flies to sink before starting my hand twist retrieve. Nothing. On the second cast, a solid strike and a wild flurry of splashing indicated a good fish. As I carefully played him, I wondered over and over, "Which one did he hit?" Bringing him closer revealed the Mickey Finn flashing wildly through the water on the end of the leader. He had taken the little wet fly. The performance was repeated several more times that day, and several times since. I am convinced that the trout view the streamer as a smaller fish threatening their food supply and react by grabbing that fraudulent food.

The next time you are having trouble getting the trout to strike, create the sort of scene that will trigger the food-competitive instincts of the trout. Tie on a Mickey Finn (or a Ghost or a Marabou or Muddler) for an attractor and "threatener." Tie a little wet fly or nymph — suggesting some form of aquatic insect life from your stream, of course, about four inches ahead on a short dropper. Work the combination through the water in short rapid spurts by the hand twist and by shaking the rod tip. The chances are you will get some really vigorous hits. Trout, like most of the rest of the inhabitants of this globe, just don't like to see their food supply threatened.

Afterthought: my unabridged dictionary describes a Mickey Finn as a drink that has a potion in it that renders the drinker unconscious. The phrase "*Slip him a Mickey,*" refers, of course, to any such use of sedative for the purposes of "shanghaing" sailors, kidnapping, etc. In other words, the Mickey Finn, is not what it is purported to be but is deception cloaked in innocence. The Mickey Finn streamer is not imitative: it is nothing but a flashy attractor. This flashiness coupled with the chase of an honest-appearing insect is indeed deception cloaked in innocence. The next time those trout will not cooperate, "*Slip 'em a Mickey*!"

THE THREE-FLY, ONE-KNOT LEADER RIG

By Dick Hoben



Until last April, I had never given my three-fly leader rig much thought, except to explain it to my son.

The last weekend in April was on the chilly side, so I climbed out of the Pohopoco Creek just above Beltzville Dam in Carbon County to thaw out a bit on a sun-warmed bank. A few minutes later, another fly fisherman plopped down beside me to exchange stream gossip. He was about fifty-ish, and apparently had spent quite a few seasons flyfishing.

"Doin' any good?"

"Nope," I replied. "I'm still trying to find something they might take."

He glanced at the Blue Quill, Breadcrust and Ashey Hackle on my leader rig, then did a double take. "How in the (mild expletive deleted) do you tie on three flies with one little knot?" he asked.

I told him I normally only fish two flies, and use the same knot when I occasionally fish three flies. I had thought that many other fishermen used the same system, but he said, "*Negative* . . . I've looked over all the rigs shown on leader packages and in fly-tying books; I've seen several methods of tying on three flies, but I never saw them all hanging from one knot."

For all I know, many fishermen use the same system that I use, but for the benefit of those who don't, I will explain it, as I did to my companion that sunny afternoon in late April.

About fifteen years ago, my eight-foot leader had parted at the point where my snelled fly was attached to my dropper loop. In splicing two more feet of leader to the six feet I had left, I used the time-honored "blood knot" for the splice.

Nipping off the ends, I noticed I had about three inches left at one end, so I just slipped my dropper fly on that projecting piece of leader, and placed my favorite fly at the end. It seemed much simpler than the loop system, and I had fewer tangles since the dropper projected at right angles from the main leader. It also presented a "cleaner" fly to the trout. This has been my rig ever since, and I don't think I had more than a dozen breaks at the splice point down through the years, and that included hundreds of days on the streams.

The following spring, as I was preparing some leaders for opening day, I asked myself, "Why not use both ends of the splice segments, and make a tidy arrangement for *three* flies?"

The best place to do this is at the kitchen table a few weeks before opening day. There's no wind blowing, your feet aren't itching to get into the creek, and the light is good.

Take two lengths of leader material — I use about a three-pound-test. One should be about eight feet long, the other about two feet, and begin to splice, using the good old blood knot. Begin to form the blood knot about two feet from the end of your long leader, and midway along the shorter piece. After you've made four or five winds on each piece and inserted the ends *all the way* through the gaps, carefully draw the splice together.

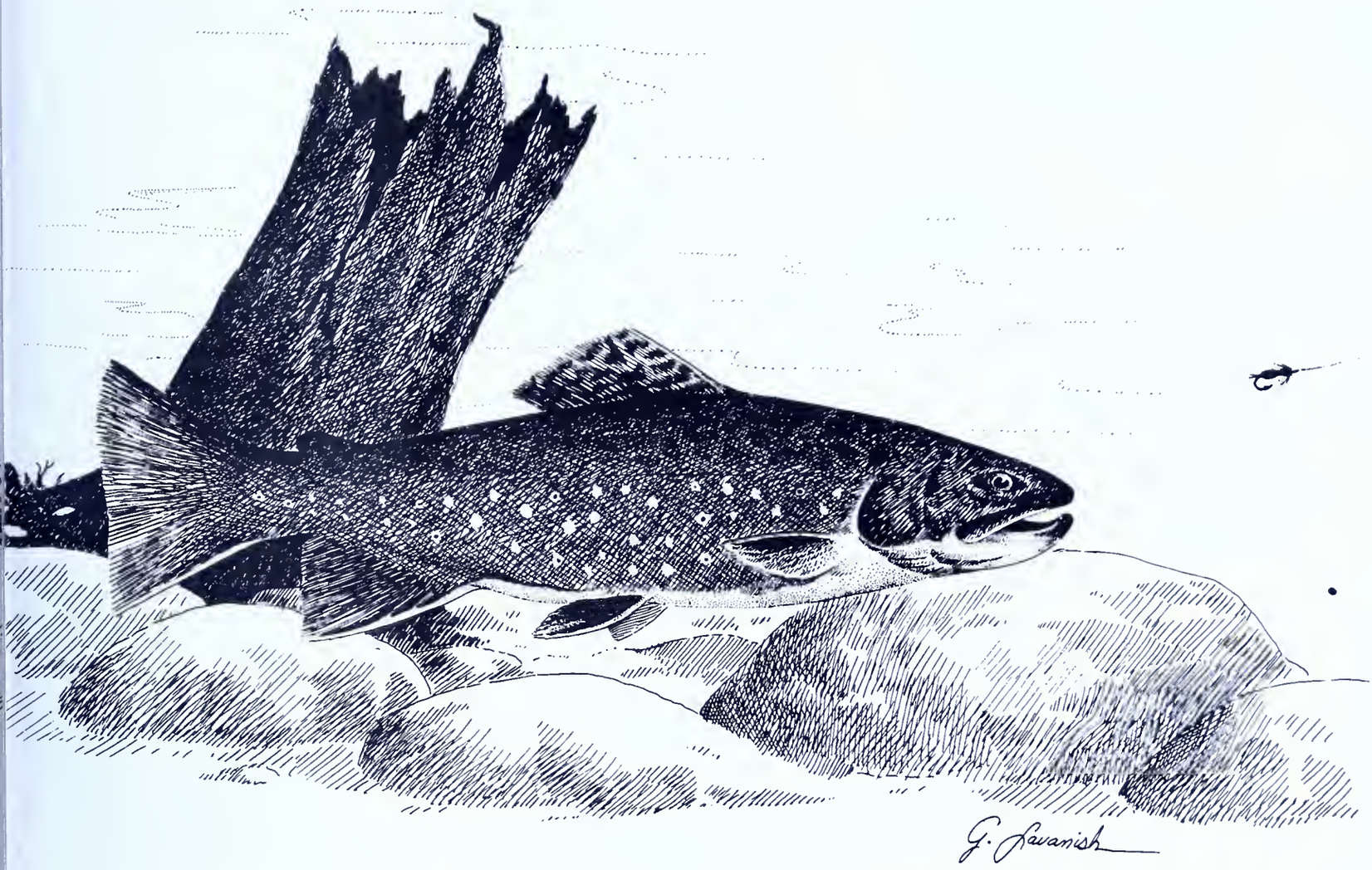
You will wind up with two twelve-inch droppers and a 24-inch end piece. Now you can nip these pieces off to suit your taste. Some like the flies only six or eight inches apart, some a bit farther. But allowing plenty of leader in the splicing operation, you can achieve virtually any spacing you prefer.

Despite some gusty wind that day in April, I managed to whip up a three-fly rig for my friend along the Pohopoco. I did warn him that the middle dropper has a tendency to wind around, especially in fast water. If problems are encountered, I told him, just nip off the offending dropper and fish two flies.

Is the old snelled wet fly a dead duck? Is it relegated to nostalgic memory, along with the irritating catgut in its wet-pack? I believe so. The magic of thin diameter, good strength nylon has much to do with its demise.

While it was convenient for late evening fishing — slip off the loop, slip on a different fly — there are just too many knots and loops involved . . . more "clutter" to scare the wary trout. And you were stuck with the diameter of the leader on a snelled wet fly. Probing a small mountain stream for native brookies, this leader may be much too heavy. Trying a fast river where some five-pounders may be lurking, the snell may be a bit too light. Finally, a freshly tied clinch knot is more reliable than a years-old knot on a snell loop.

The rig I have described may not be the best, but it is particularly helpful on one of those frustrating days when you've broken or hopelessly snarled your leader just when the fish are hitting. With a little practice, you can put it together streamside in a matter of minutes. Try it — you may like it!



Memories of the First Fork

by J. Raymond Bouch

It's springtime in the mountains, here and there the winter's snow drifts lie almost melted among the rocks and mountain laurel on the northern slopes not yet warmed by the more direct rays of the sun.

The white birch are sprinkled through the hardwood forest and mountain springs gather on the right side of the road gradually forming Wykoff Run, a beautiful little stream, broken by small waterfalls, dotted with beaver dams and populated wth native brook trout. A narrow road parallels the stream as it winds and falls to the valley's floor.

The iron bridge which crosses the Main branch of the Sinnemahoning lies at the bottom of this valley. The First fork of the Sinnemahoning enters about two hundred yards below this bridge.

I have fished many of Pennsylvania's more storied streams such as the Letort, Yellow Breeches, Penns Creek, Spring Creek and Tionesta and the area around camp is crisscrossed with many of the small clear streams which were famous for their native brook trout in the early 1920s and 30s.

Streams like Lushbaughs and Bailey and close over the mountain are Trout Run, Cross Fork and Hammersley Fork. I sometimes slip away from the opening day crowds to fish these smaller streams, but I always look forward to the hours spent on the First Fork's bigger water.

Each of us have our favorite stream, one piece of water that stands out in our memories and is thus set apart from all the other streams we have been privileged to fish. There are memories of deer browsing in the meadows and the sound of wild turkeys calling early in the morning, their music echoing between the mountains. The occasional glimpse of a beaver going about his workmanlike business and hawks soaring upon the currents high above the mountains.

Memories of hours spent around a campfire with friends and relations and late evening fly-tying sessions after the camp chores have been completed, when all that's left to do is recall with pleasure the day just passed and pause to reflect on tomorrow, but the memories which linger and come back to dance through our



minds like Coffin Flies above the water are those of the river itself.

Memories of favorite riffles and the feel of their waters against our waders, the crunch of gravel under our feet as they find their way down familiar paths, the sight of fluttering duns and rising trout and the memories of how our hands shook in the April wind partly from the cold, but also in anticipation.

The river has been good to me these past fourteen springs. The holes are rich in memories, holes like "Forty Maples," "Red Barn," "Shutz's," and "Cemetery" all have left their experiences like layers in my mind.

. . . Forty Maples . . .

I had been fishing above Stevenson Dam at "Forty Maples," the hole is named for the forty maple trees, which are strung out in a row between the parking area and the creek. The heavily wooded mountain drops steeply to the other side of the stream.

There was a vertical rock ledge above the riffles which emptied into the head of the pool. The main stream of current curved away from the near bank and settled into a long pool, chest-high deep, studded with jumbled rocks and crisscrossed with underwater ledges. It was difficult water to wade; the water was high, clear and icy cold, its numbing currents pulled and tugged at my waders. It was a beautiful day to be on the water; the sun was warm on my back and there was only an occasional gust of wind to trouble my backcast.

A lone angler was fishing his way slowly down through the hole ahead of me. He was catching three or four fish for every one that I caught.

"I must be doing something wrong," I thought. Just then I got my dropper tangled in my tippet during one of the harder gusts of wind. "Might as well head for the bank and get my legs warm and change flies while I untangle this mess." I thought.

"Any luck?" asked the fisherman who had been catching the trout ahead of me.

I looked up from my task. "A little," I replied.

"I noticed that you were catching them quite regularly," I said."What are you using?" he asked.

By now I had taken the fly off of my line to facilitate untangling my leader.

I took my box out of my vest and showed him the flies which I had been using.

"Humph!" He reached for my box, looked, and then said, "Use them hard ants, Slim." By luck, I had purchased two hard black wet ants during the winter.

"Look," he said and showed me his leader. On the end was a hard black ant.

"I always like a hard ant," he said. "They sink fast and that's important 'cause the fish are lying deep, but more important, the ants are swarming. Hadn't you noticed?"

"No," I replied, looking upward.

"Won't see 'em now" he said, "'Cause the wind picked up a little." He walked over to one of the maple trees, looked, then brought back a black ant, complete with small clear wings. "That's what they're eating, some get on to the water and the trout seem to like 'em." "Well, time to take another pass at them. Good luck, Slim."

I thanked him for his advice and watched as he made his way into the water. I went over and squatted down at the edge of the bank and watched as he fished his way down into the hole before carefully wading into the water above him. I attached one of my hard ants to the tippet and started to work out line.

"Got one, Slim!" He called over his shoulder. Sure enough the old fellow had hooked another trout.

The hours that followed that afternoon were memorable, not only because the ants caught fish after fish, but because the old fellow seemed as happy when I caught a trout as he was when he hooked one himself.

The old fellow died a few seasons later, but I think of him fondly everytime I tie on a hard ant to fish those spring currents he loved so well.

. . . *Red Barn* . . .

It was time to get out of the water, my feet were numb from two passes through the riffles and down into the waters of "Red Barn."

We had fished this hole the previous evening. We had caught and released a few fish, but had missed a majority of our strikes, so we decided to try it in the morning.

"One more cast." The water was dangerously close to the top of my chest high waders. I was using one of my best weighted dark brown nymphs. I knew I could get down to the fish and had been optimistic when I first approached the head of the hole. Two passes without a hit were turning my optimism to doubt.

I looked over my shoulder at my fishing companion. He shrugged his shoulders in reply to my questioning look.

"Maybe it's too cold," I thought and headed for the bank.

There was little warmth in the air at 8:30 a.m.—the sun was not up far enough to be on this particular hole and frost still lingered on the grass along the stream bank. Across the stream two bait fishermen had rigged their rods in forked sticks and were standing with their shoulders humped and hands deep in their pockets. The sun was only twenty five to thirty yards back from the stream and we moved out of the shadows to meet it. In a while we were relatively comfortable and we waited till the sunlight gradually worked its way onto the water. Carl went to the head of the riffles and I took a position where the water widened and the current curved gradually toward the far bank.

I had been in the water about fifteen minutes when I noticed a fish swirl out across the current. I lengthened my cast to cover his lie.

Two casts . . . three . . . the fly teased deep in the spring currents.

"Come on, take it." He swirled again. I waded slowly out of the water and reached into my vest. I would have to change lines in order to interest that trout. The swirls were becoming more numerous now as I hurriedly completed my changeover. I watched as I waded back into position. The rise forms had grown more vigorous. The flies seemed to take off with very little drift.

"Must be Caddis," I thought.

I tried a #16 Adams on the 5X tippet. No luck! Time and again I cast over feeding fish, but with no response. I stopped and hurriedly attached a #16 Dark Cahill. The rising fish still ignored my efforts. I changed the fly again and this time, on a hunch, I used a #16 wet Hare's Ear.

The line looped out and dropped the offering slightly upstream of the latest swirl. I didn't get a chance to mend the line. The take was sure and the fish made two wild jumps before boring his way downstream into the deeper water below me.

"About time you caught one of those dumb ones," my fishing partner called.

"Ha," I laughed, "Jealousy will get you nowhere . . . try a #16 Hare's Ear instead."

Fish that had started out the morning by ignoring us were suddenly easy to catch. We caught and released fish for over an hour before the action stopped almost as abruptly as it began.

. . . *Shutz's* . . .

I glanced at my watch as Carl and I donned waders and vests.

"About an hour's good light left," I said.

"Hope we do better tonight than we did today," Carl replied.

"Which side do you want?" I asked. "No matter," He said.

I waded across the riffle at the head of the pool and started fishing my way down to the deeper water below.

"Shutz's" is perhaps the most difficult hole on this stream. The upper stretch of riffles is easily fished and produce only smaller stocked trout, but the hole deepens rather quickly and the bigger browns and holdover trout are usually taken in the deeper, unwadable portion of the hole.

It was a cool evening and I was grateful for the heavy turtleneck sweater pulled snug up under my chin. Two wood ducks flew swiftly up stream silhouetted against the slowly darkening sky.

"Caught one!" called my buddy from across the stream.

"I haven't had a bump yet," I replied. I fished my way on down and watched as he brought a scrappy rainbow to net and released it.

Thirty yards down the stream there was a tree limb sticking up out of the water close to the edge by a particularly deep pocket. The water had reached the bottom of my vest and large rocks barred my way. This was as far as I could go.

"Might as well hang tight here till dark," I thought. I was fishing two weighted Hendrickson nymphs on a sinking tip line. "Maybe I should change flies?" I looked across at my friend just in time to see him hook and then lose a trout far below him.

(continued on page 29.)

Fishing on the Wild Side

by Bill Pennewill

Give up a little, get a lot. That could be the key to a "wild" time for the angler who combines camping and fishing, and is willing to forgo the conveniences of modern facilities for primitive accommodations available at some state campgrounds.

It took me a couple of years to figure that out. Like a lot of other campers, I took for granted that the back-to-nature bit included macadam travel-trailer pads and going to sleep to the hum of air conditioners, instead of the hooting of owls. Crowded campgrounds and creeks were an inescapable result of the renewed interest in the out-of-doors, I thought. "Wild" was what the kids were in the next campsite.

Once I realized that flush toilets and civilization go hand-in-hand in the woods, just like the city, I started looking for out-of-the-way places. The search paid off with the discovery that the Bureau of State Parks has tucked away in Penns Woods some Class B campgrounds featuring outhouses and handpumps that have been overlooked by many campers and fishermen. One is so far back in the bush campers have to drive through a small brook to get to the sites, half of which are usually empty. Within a half-dozen miles is a mountain run teeming with small, native brook trout.

Wild? Now it can mean a lonely little brook hidden away in the woods or some larger half-forgotten creek cutting through a valley between tree-lined mountains. Sometimes, if I'm lucky enough, it even means the fish.

However, don't expect to see signs saying, "This way to wild fishing." To pinpoint such a woodland brook would be like signing its death warrant. Now there are no empty beer cans beside the clean, clear water. There's just an unbelievably large number of small, brilliantly colored trout eagerly awaiting any morsel — or fly — that comes drifting by. Besides, fabled fishing like that is twice as nice when discovered on your own and enjoyed alone.



A surprising number of brook trout were discovered in this tiny mountain stream a half-dozen miles from a nearly empty Class B campground.

It wasn't until last season that I realized some of the most memorable fishing I'd run across was near primitive campsites where I'd been tenting. I was fly-fishing for trout in a hefty midstate creek. It was June and worn, rounded rocks edged the streambed as the creek started to shrink to midsummer level. A thunderstorm the night before had turned the water milky. Gray clouds hanging over the mountains promised more rain. The current foamed as it raced through rapids, then settled into glassy slicks over deep holes. Wading was difficult in many places. Often I had a hard time inching out far enough to cast a white maribou streamer to the pools and eddies along the far bank. When I did a smallmouth bass usually hit the streamer first. I lost count of the times that happened. One hit the streamer so hard it about doubled my graphite rod

with a leader-snapping jolt that had my imagination working overtime.

"Boy, that must have been great fishing," a buddy at work said.

"It would have been," I answered, "except I was fishing for trout and had a hard time catching enough for supper."

When I heard myself say that I realized just how great the fishing had been. But it wasn't just the fishing. Mixed in with the action was a large dose of isolation and solitude — both on the stream and in the campground — that provided the opportunity to relax and appreciate what nature had to offer. At one point it was spectacular.

I was standing on a stone retaining wall along the bank on the downstream side of a dam. As I cast my streamer into the foaming water at the foot of the dam I could look down from my vantage point and watch the current carry the fly to the lip of the pool. Usually a fallfish would hit the streamer, then a bass or two would appear on the scene to investigate the commotion. I started to pull the fallfish in as fast as I could in order to cast to the bass they were attracting. As I zipped one along near the surface a bass shot up from the deeper water and butted the small fish into the air. When the fallfish hit the water the bass knocked it into the air again. This time when the fallfish came down the bass grabbed the fish sideways in its mouth and started to swim away!

Fortunately, I was so dumbfounded I had let go of my line and it was slack enough to allow the bass to run. After a short distance the bass spit out the fallfish, then sucked it in head first. "Could I really catch a bass on a fallfish on a streamer?" I wondered as I inched the line taut. When I tried to gently set the hook the fallfish popped out of the bass' mouth. Instead of being spooked, the bass inhaled the fallfish again. This time I used some arm action to set the hook. When the barb hit home the bass shot off across the pool. Holding the rod high to keep the line tight, I worked my way to the end of the wall and scrambled down the bank to the tail of the pool. When I finally netted the bass I discovered the streamer was hooked deep in its throat and I had to cut the leader to let it go. I never did see what happened to the fallfish that started it all.

Sometimes, though, it isn't *sight* but *sounds* which add a special note to a "wilderness" fishing trip. At dusk the first night I was entertained by the treetop performance of a Baltimore Oriole. For a long time in the fading light the orange and black bird sat on the uppermost branch of a tall dead oak in a clearing across from my tent and sang just for his enjoyment and mine — and maybe for his mate's, too, I don't know.

The sweet song of the Oriole was a lot different than the raucous cries of a couple of crows which seemed to be offering me advice on how to pitch my tent when I arrived at the nearly empty campground. But since the crows in the trees outnumbered the people in the campground I didn't mind their company one bit.

A fishing outing like that should have made me realize I had stumbled onto something special. But it took a park superintendent to turn the light on. I'm a staff writer for The Evening News in Harrisburg and I was doing a camping story for readers in our area.

"Tell them about Blue Knob in Bedford County," he said, noting the year before only 6,154 campers utilized the 75 sites. "Or, for tenters, there's Penn Roosevelt, where you'll almost have the whole park to yourself, or Bald Eagle, where there are 35 sites by a 1,700-acre lake." These, he said, were "among the few" not full the previous holiday weekend. All three are Class B campsites.

Then the pieces fell together as pictures of other fishing trips flipped through my mind. A solitary tent-camper sitting alone in a grassy, park-like campground. Brilliantly speckled trout in a lonely, upstate stream. A herd of deer around an apple tree near an abandoned farmhouse as I drove along a rural road at the end of a day's fishing.

The superintendent sent me a list of state parks showing total sites occupied and total number of people who stayed at each campground the previous year. Naturally, in most cases Class B campgrounds with a smaller number of sites usually had the smallest number of people. The figures also showed that some campgrounds must have had a lot of empty sites. But just because a campground is small doesn't mean it can't be crowded. Site figures showed "pretty heavy usage" at a number of "in places" such as Pine Grove, in Cumberland County, or World's End, in Sullivan County. Both had higher occupancy rates than Penn Roosevelt or Bald Eagle. However, "heavy usage" exceptions shouldn't be taken as permanent roadblocks in the search for Class B campgrounds with more owls and raccoons than people. They just mean it's going to take a little more looking. But the angler looking for fishing on the wild side eventually will find it.

The search starts at home, though, with a list of state parks and maps of the counties you plan to fish. A list of "Pennsylvania State Parks" is available free from the Office of Public Information, Department of Environmental Resources, P.O. Box 1467, Harrisburg, Pa. 17120. County road maps can be bought from the state. A price list for the maps can be obtained by requesting Publication 12 from the Pennsylvania Department of Transportation, Maps and Publication Section, Building 33, Harrisburg International Airport, Middletown, Pa. 17057.

Next, dig out the summary received with your fishing license and look up the list of stocked streams. With this information, mark the campground you're interested in on the county map, if it isn't already there, and indicate stocked streams with a colored felt-tipped pen or Hi-Liter pen. Now you can see at a glance all the potential places to fish near the campground. But that's only a start.

Flowing into some of the stocked streams—particularly those hidden in the hills—are feeder streams and runs, most filled only with promises. But you'll never know which ones until you look. When you do go searching, usually all you'll have to show for your efforts will be scratches from fighting your way through brush. Sometimes when you finally find a stream with fish they're so skittish you can't get close enough to cast a fly. "Is it worth it?" you wonder. You get the answer when a scrappy six-incher socks your fly and fools you into thinking it's a lot bigger.

When that happens it won't be just the fish that's hooked. The flash, the splash, the line cutting through the small pool . . . you'll see and hear them long after you've put away your rod, folded your tent and returned to the daily grind. The memory, like a magnet, will draw you back many times.



FLY TYING

A PALMER GINGER QUILL

by Chauncy K. Lively
Photos by the author

Mayflies of the genus *Stenonema* are common to most of our rocky-bottomed streams. They are of medium to large size and the duns typically have mottled wings, two tails and banded legs. At rest, the upright wings often slope backwards at an angle, the degree of which may vary among species. These mayflies comprise several groupings, to which anglers have attached such common names as the Cahills, the March Browns, the Ginger Quills and others. Most Stenonema species, as a group, emerge within a span of five to six weeks — generally from mid-May to late June — but I have fished to reasonably good hatches as late as September.

In late May, a few days after *Stenonema vicarium,* the March Brown, begins to make its showy appearance a smaller mayfly appears, bearing a close resemblance to the March Brown and often mistaken for it. It is *Stenonema fuscum,* variously called the Ginger Quill or Grey Fox and it is probable that the Mallard Quill pattern was also intended to represent this fly. In addition to being smaller than *S. vicarium, fuscum* is paler in overall coloration and its wings are less prominently mottled. Its body color is brownish-amber and the legs tan, with the distinctive banding typical of *Stenonema.* The tails are closely banded and resemble two speckled wood duck fibres.

Like *S. vicarium, fuscum* emerges sporadically throughout the daylight hours; in fact, the two species often emerge simultaneously. Several early angling authors have stated that trout are rarely selective to one or the other species when both are on the water at the same time. However, their observations were made on relatively infertile freestone streams. In rich, alkaline waters trout tend to be more discriminating and discrepancies in size and coloration of pattern can lead to disappointment. It is for this reason I like to carry separate patterns to represent the March Brown and Ginger Quill, even though a smallish March Brown will sometimes prove "near enough" when Ginger Quills are on the water, and vice-versa.

Our Palmer Ginger Quill pattern represents the subimago or dun stage of *S. fuscum.* Its wings are fashioned of two mottled feathers from a ring-neck pheasant's back, individually trimmed to shape with large nail clippers. For this fly I like the palest of the pheasant back feathers, with rather indistinct markings. Tails are two speckled wood duck fibres, which, because of the fly's design, are not required to support its posterior end on the water. The hackles are one each, ginger and grizzly, wound in open palmer style from front to rear over a body dubbing of yellowish-tan fur. The whip finish is made at the rear of the fly, underneath the apex of the tails, after which a wide V is trimmed from the underside of the wound hackles.

The time of the Ginger Quill is a favorite time of year. The streams have rid themselves of spring floods and the gentle warmth of May stirs activity in both flora and fauna. In the woods the mountain laurel is in full array, often resembling a formal floral garden. The appearance of the Green Drake is just a few days away, if it hasn't already begun, and favorable water temperatures have stimulated the appetites of the trout. It's a time of year when every day astream is a completely new adventure with hatches, both those expected and those unanticipated, in sufficient quantity to keep the angler's adrenalin flowing at a high pitch.



Dressing a Palmer Ginger Quill:

Left — Clamp a size #14, regular shank hook in vise and tie in fine, brown thread at bend. For tails, tie in two speckled wood duck fibres. Length of tails should be equal to overall hook length. Wind thread forward 2/3rds the length of shank and half-hitch.

Right — For wings, select two mottled pheasant back feathers and trim to shape with nail clippers. Hold wings together, back to back and upright, with stems straddling shank. About 1/16" of bare stems should show above shank. Secure with figure-8 turns; then bend stems back underneath shank and bind with several turns. Trim excess stems. Adjust wings by preening until they are perfectly straight and apply a drop of hard-drying cement where stems meet shank. Note: effective wing height should be equivalent to overall hook length.

Left — Select one each, ginger and light grizzly hackles with barbules 1½ to 2 times as long as gap of hook. Strip off lower webby barbs and bind both together to shank just in front of wings. In place, the hackles should be at right angles to shank, on edge and with glossy sides facing bend. Position the grizzly hackle to face wings. Then wax about 3" of the thread and apply a dubbing of yellowish-tan fur.

Right — Wind bare thread to eye; then wind dubbing toward bend to form a tapered body. Allow thread to hang under weight just forward of bend.

Left — Grasp tip of grizzly hackle with hackle pliers and make a full turn in front of wings; then wind to rear in spaced turns and tie off at rear of body. Wind ginger hackle, following the path of the grizzly, and tie off at rear. Trim off excess hackle tips.

Right — Whip finish underneath base of tails, cut thread and apply lacquer to finish windings.

Left — With fine-pointed scissors, trim a wide V from underside of hackle.

Right — The finished Palmer Ginger Quill.





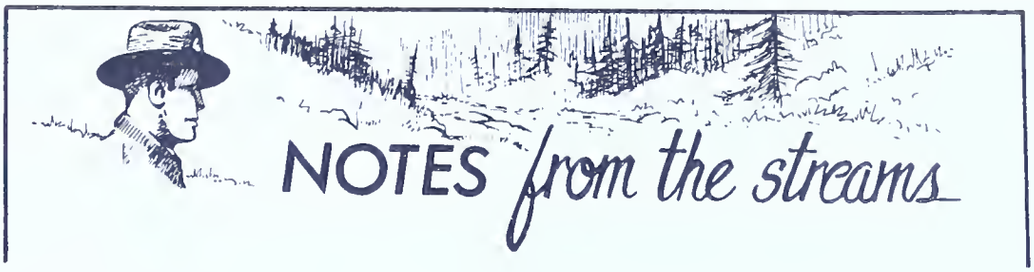












DOCTOR "X"

After checking some hunters on the second day of the '78 Anterless Deer Season, I was heading home for a bite to eat when I noticed a vehicle pulled alongside the road with the trunk lid up and a lady standing beside the car.

Under the impression she was broken down, I stopped to see if I could help in any way. When I pulled over, the lady (now seeing me in uniform) slammed the trunk lid closed, but not before I could see the contents of the trunk. Just then her husband came dashing out of the woods. I informed both the husband and wife that I knew what they were doing and that it was against the law. I asked them to open the trunk and upon doing so I found several large branches stored in the trunk. They were breaking branches off the State Tree on State Game Lands.

After informing them they were violating the law, they both started blaming the incident on each other — which I found amusing since I watched both of them engaged in the violation. After all was said and done, the thing I found most outstanding was when I was filling out the information on the arrest sheet. When I got to the question, "What is your occupation?" the man turned to me and said, "I'm a Tree Surgeon!"

Raymond C. Hoffman
Deputy Waterways Patrolman
Schuylkill County

NO SUMMER SOLDIERS

The "Spirit of 1776" was alive and well on Christmas Day, 1978, as the twenty-sixth re-enactment of Washington's crossing the Delaware took place at Washington Crossing State Park, Washington Crossing, Pennsylvania.

With a penchant for realism, four Durham boats, complete with crews and a believable Washington and staff, traversed the Delaware River in subfreezing temperatures.

Having viewed the re-enactment, I contemplated in awe, the courage, sacrifice, and the success of Washington's small Army on Christmas night, 1776.

Wayne L. Imler
Waterways Patrolman
S/Bucks County

NOT "STORE-BOUGHT"!

My pop told me when I was a little boy, "Son, you don't need all that fancy store-bought stuff to catch trout." I think he was right, after watching a small boy outfish several well-equipped fishermen last summer. His gear was a cut straight pole, Japanese Beetles and red June berries for bait. Catch 8 trout.

Owen F. Quarles
Deputy Waterways Patrolman
Warren County

POLLUTION CLEANUP

A report made for Federal Environmental Agencies concludes that pollution controls slightly increase the inflation rate, but acutally reduce unemployment. The President's Council on Environmental Quality and Environmental Protection Agency said the report shows that the cost of cleaning up air and water pollution will add less than 0.1 to 0.2 percentage point to the inflation rate over the next eight years. The report, prepared by Data Resources Inc., a private consulting firm, also shows that environmental rules will cause the unemployment rate to drop by an average of 0.2 to 0.3 percentage point during the same period. The reason is that increasing numbers of people will be employed making and operating pollution-control equipment.

Bernie Ambrose
Waterways Patrolman
Elk County

NEMESIS!

On Wednesday September 12, 1978, we were preparing a lock study at Maxwell Locks on the Monongahela River in Washington County. Mr. Blake Weirich, Mike Boyer, biologists for the Pennsylvania Fish Commission, Mr. Carl Shaffer, a biologist for the DER, Mr. Bart White from ORSANCO, and I were at Packral Bay. Packral Bay is a dock on the "Mon" River.

We were standing around discussing the plans for the day's activities. There were two Mallard hens and a young duckling about twenty yards from us on the water. All of a sudden, one of the hens began to raise cane. We turned to look . . . there was a big swirl in the water. I said, "There must be a large fish after that duck, perhaps a musky!" The hen dove into the water; she and the duckling came up. They began to swim towards shore. There was another large swirl; away went the duckling again. I saw a dark spot in the water, just out in front of my patrol boat. The duckling popped to the surface of the water for the third time. The hen was now frantic! The young duck was beginning to struggle on the surface of the water. I jumped into my boat and pushed it out to observe the thing making that big swirl. As I got close to the shadow, what a surprise! It wasn't a fish at all, but a very large snapper! It had the duckling in its jaws. It saw me and started to dive for the bottom with the duckling tight in its mouth.

I told the owner of the docks about what I had just seen. She said, "There were seven all told — now they're all gone."

Snapper hunters, there's some prime meat swimming around that dock just waiting to become turtle soup.

Jerry Greiner
Pollution Patrol
Three Rivers

NABBED!

Ole man weather wasn't too good to us here in Warren County last year as the first day of our trout season water was high and cold, the catch was down the first week. I think the second week was better. And someone was wrong about no fish in Farnsworth Branch. Two fishermen stopped to tell me what a lousy job we did stocking this year. I told them they were put in . . . just hadn't been caught, and as luck would have it, the very next fisherman I checked had 18 and was still fishing!

Owen F. Quarles
Deputy Waterways Patrolman
Warren County

NO COMPLAINT HERE —

Amid the moans and groans in regards to the recent fishing license fee increase, I met a gentleman today near the Brunner Island P.P. & L. plant who had no complaints at all over the increase. But then, he had found a way to make it pay — he was fishing. As I left him, he was putting on another worm and hopeful that another walleye like the 18-incher he had in his bucket would come along. The way the walleyes have been hitting lately, my bet is that one or two did.

Ronald L. Hoffman
Waterways Patrolman
S/York County

TWO FOR ONE!

Having lost interest in deer hunting on the first Saturday of buck season, I decided to see if there were any fishermen on Sylvan Lake. Arriving at the access, I found Emmit Musselman, who is 83 years young, fishing from the bank. He had just caught a very nice 20-inch pickerel and we were talking a little about how nice and fat it was when I noticed that his bobber had just disappeared from sight. The catch — another nice pickerel, 19 inches long, with an unusually shaped belly.

"It must be filled with eggs," he said.

"Can't be," I replied. "How about opening it up to see what's inside?" I asked.

Out popped a 9-inch rainbow trout which must have been swallowed a short time before. It was now dead, but showed no signs of digestion. And to think this gluttonous pike also wanted Emmit's 3-inch shiner! Probably decided to finish off his good meal with a little dessert.

Joseph Kipp
Deputy Waterways Patrolman
N/Luzerne County

Memories of the First Fork

(continued from page 23.)

I was jolted out of my daydreams by the take of a particularly heavy fish. His first run was down and across the stream. "Hey!" "Look at that one go," I shouted to Carl. "Must be a big one," he replied.

Just then the fish turned and came back across stream and headed for the deep pocket below me. The snag which I had noticed before now appeared to be the trout's next destination. I held the rod high and put on all the pressure I thought the tippet would stand in an attempt to turn the fish. He rolled on the surface a scant three or four feet from the menacing branches. The line went slack as he turned and ran directly toward me. I stripped line frantically in an effort to catch up with him but to no avail. All of a sudden I saw him. He was holding in the water slightly to my right immediately below the large rocks which had earlier blocked my path. I picked up my slack line and slowly lifted the rod, fully expecting to feel the trout return to the fight; instead, I watched in dismay as my nymphs came gliding to the surface.

The big trout hung there for a second then quickly disappeared from sight. I stood there, staring, visibly disappointed at the loss.

"What happened?" Carl called. I explained as best I could while I checked both of my nymphs. The hooks were both intact.

"How big was he?" I can't say for sure, but I know he was the biggest trout I have ever hooked on the First Fork.

It's one of the memories which keeps me coming back and wading to my limit in "Shutz's" deepening waters.

. . . *Cemetery* . . .

"Cemetery" hole is located about four hundred yards above "Forty Maples."

It is a long hole which has slow water in the lower reaches which favor the exciting green drake hatch and long, swift, boulder-strewn riffles at the head of the hole, which abound with caddis and stone fly nymphs.

It is not an easy hole to fish. The upper portion can be waded but the heavy riffles and conflicting currents make a drag-free float difficult. Some of the lower portion is not accessible to the angler even in chest high waders. Good fish often feed, unchallenged, just out of the reach of the fly fisherman.

This hole is sometimes best when the weather seems to be conspiring against me. Two companions and I fished this hole in the opening week of the 1970 season. A fine, cold mist and gusting winds, combined with the chill of the water kept us shivering in our waders. The trout kept us in the water in spite of the chill. Red Quill nymphs turned the trick time and again as we alternated our time between the bone chilling water and a fire, which we had built under the big pines along the east bank. My fondest memory of this hole is of a brief yet vivid encounter that following June.

My son and I had driven up to camp on a Saturday around noon and after unloading our spare gear we headed for the stream. Swallows were skimming and diving above the creek when we arrived.

"There's a hatch coming off," I said. Hurriedly we parked at the lower end of the hole, pulled on our waders, grabbed rods and vests and crossed the creek and headed up the far bank.

We caught the end of what must have been a heavy hatch of March Browns. As we stepped into the water I picked up a dun which had been having difficulty escaping its shuck and Doug watched fascinated as the back finally split and the dun emerged. Fish were feeding everywhere and I cautioned him to pick one feeder and cast to him a couple of times before moving on to the next one. It was the heaviest action he had ever seen and I can still recall his excitement as though it were only yesterday. His hands were shaking and he had no sooner made his first cast when a trout rose heavily to his imitation, but in his eagerness he set the hook too hard, leaving the fly in the fish. Another fly, a miss, two casts . . . three, "Strike!" he yelled. This time everything went right, the brown was soon brought to net. Again, I heard his excited shout, "Got him!" He was fast to his third trout before I stepped into the water twenty yards above him. The hatch was almost over but we both managed to catch one more trout before all activity had stopped. I walked down the bank and watched as he waded out of the water.

"Boy! Did you see that last one jump? Did you see him, Dad?"

"You should have started fishing right away, Dad!"

Someday perhaps he'll understand, at least I hope he'll get a chance to see and hear the excitement of his own boy when he sees his first heavy hatch. Yes, someday he'll understand.

"Oh, that's okay son," I said, "I was just watching you."

Yes, these and other memories make this my favorite stream but if you were to change the names this could be any man's favorite stream, because fishing is not just the feel of the fish after he is hooked. It's so much more.

It's memories . . .

"Of fluttering duns in April and May
"Of icy mornings and sun-filled days
"Of wooded hills and valleys steep
"Of cold wet springs when the trout hold deep
"Of campfires and sunsets but even more
"A child to teach your fishing lore."



Would slowing this craft before making a turn:

- ***a. Reduce its required turning distance?***
- ***b. Increase its required turning distance?***
- ***c. Have little effect either way?***
- ***d. Make the engine backfire and stall?***
- ***e. I don't know . . . think I'll read the text!***

Ashore & Afloat

by Gene Winters

For some, the new boating season is underway. For others, it may start any day from now through Memorial Day. But, for all of us, chances are there are some rusty spots from the long winter's hibernation that have to be smoothed out. For one thing, our mental/physical condition is probably a little stale at each season's beginning — too much good living indoors during the winter months. Our sense of timing and our reflex actions are probably dull from the long months of rest cold weather forced upon us. It all adds up to my personal recommendation for a slow and easy start to the new season. I think this is good advice for the boat, skipper, and the crew.

My free advice is, I think, especially applicable if you did some old-fashioned horse trading during the winter months. That means you have the chance to really see how boats can have their own individual personality. Individual characteristics that also cause the same boat to respond differently under different conditions or different boats to respond differently under identical conditions of wind, weather, and current.

There are many factors to consider. For example, draft and freeboard have an effect. High freeboard creates windage which allows a boat to be blown to leeward. A deep draft gives a grip in the water with which to oppose that tendency. Not only the draft but also the trim has a bearing on a boat's handling quality and affects, to some degree, the point near the bow about which the boat will pivot in a turn. Then, too, there is the difference in types of propulsion systems. The inboard-outboard (I/O), like an inboard boat, has an inboard engine. But, unlike the inboard boat, it has an

outboard drive unit, which pivots like an outboard.

If, during the winter, you may have made a change from one type to the other, you are going to have to learn some different boat-handling techniques. Even if you didn't change boats, you may need some practice to shake out the cobwebs from your mind.

There is, for example, a great difference in the size of turning circles for (single-screw) inboards compared with outboards or I/O's because the shaft and propeller of the inboard are fixed on the centerline and cannot be rotated. *Stops* are provided on an inboard's rudder to limit its maximum angle. Beyond that point, an increase of rudder angle would result, not in a *smaller* turning circle, but a *larger* one. Thus, in almost all cases a rudder-equipped inboard will require a larger turning circle. Contrary to popular belief, while there is always a loss of speed in making a turn (due to slippage), the size of a boat's turning circle will vary little with changes in speed, assuming a given rudder angle. Whether at high speed or low speed, the actual diameter of the turn is about the same.

Draft of the vessel and water depth combine to effect a boat's steering. Even though the boat's propulsion system may not actually be touching the bottom, the boat's response in shallow water (particularly if a rudder is involved) is almost always sluggish. Combined with the fact that you would normally be operating at a slower speed in shallow water, steering control is lessened considerably with reduced headway.

Seasoned skippers know a fundamental principle that all boaters should become familiar with: in close quarters, a motorboat can be turned in a couple of boat lengths or, in some cases, within its own length. Its all done by judicious on/off use of the throttle, using power to literally "kick" the stern around, making the boat turn on a nearly stationary pivot point.

It's important, too, to learn quickly the difference between steering a car and steering a boat. It's important to learn, for example, that when pulling away from alongside a dock, you never throw the wheel full over, automobile-fashion. (At least until you are sure the stern is clear.) Although handling an inboard is generally harder to learn than an outboard or I/O, some basic propulsion theory is helpful in all cases. The direction of propeller discharge current of an inboard boat is *always* parallel to the keel, be it forward or reverse. With outboards and I/O's, the situation is radically different.

The thrust line of outboard/IO propulsion is easily changed from dead ahead or astern to either side, usually up to about 40 degrees either side of the centerline. (On small outboards not having reverse gear, thrust can be pointed in any direction by a full 360 degree circle.) Why, then, should there be any difference in handling between one outboard boat and another? The answer is hidden in the fact that the pivot point around which the *thrust* is rotated is *outside* the boat, just aft of the transom (except in a few specialized boat designs). *This external turning point of the thrust combines with the natural turning point of the hull* to result in a pivot point of the craft that is *highly individualized* and can only be learned from *experience* with a particular craft.

The second obvious difference between an inboard and an outboard or I/O is the fact the outboard and I/O lack a rudder. The rudder is unnecessary as the change of direction of thrust (by rotating or moving the lower unit) very efficiently and effectively changes the heading of the boat and its direction. But there comes a time when a price is paid for the absence of that rudder. When the outboard or I/O propeller is throttled back and giving little or no thrust, the lack of the rudder deprives the skipper of the control of steering he would have with an inboard boat from the flow of water past the rudder (and thus at least minimal steerage) as the boat "coasts." True, the lower unit of an outboard or I/O does to a small degree act as a rudder, but very inefficiently and ineffectively. The lack of positive steering action with little or no power on is something that must be considered in handling this type craft. It is not a major problem (it can be partially compensated for by power thrust joggling, as mentioned earlier) but must be remembered and not overlooked, particularly when working in close quarters.

There is also some degree of torque effect present on outboard and I/O systems as the propeller shaft is horizontal. Large motors, in particular, tend to have a torque from their high rotational power and speed. To compensate for this, many lower units have a small, adjustable tab which can be offset from the centerline to correct for any torque. Properly adjusted, the largest motors should be able to run at high speed with minimal or no tendency to pull to the side.

Many beginning outboarders have great difficulty in adjusting to the fact that the steering handle is on the opposite side of the pivot point of the propeller. *The handle must be moved to the side that is opposite the direction in which you desire the craft to travel.* Outboards equipped with steering wheel and cables are designed to eliminate these mental gymnastics; the mechanism will make the boat turn in the same direction as the wheel is turned. When backing, the reversed propeller is, in effect, pulling the hull through the water and the stern is now "the bow." Again, with handle steering, the motor's steering handle is moved to the opposite side of the desired direction of the stern.

The essential maneuvers of boat handling are not that difficult or intricate that they cannot be learned by almost anyone with the will and inclination. Reasonable speed and practice are the main required ingredients to becoming a competent pilot. And, keep in mind, sometimes the most fundamental, elementary way is the best or easiest. For example, it is often possible to get away from a pier or dock by simply pushing off by hand, waiting a moment to gain some open space, and then going ahead slowly with a very gentle outward turn. You seldom see skippers do it, but a very effective way of getting off is to simply back out past the end of the dock or pier far enough so you can go ahead, turn and leave without the stern bumping the dock.

The written theory of boat handling can easily fill a book (and already has filled several good books). It can only be hinted at in these very limited pages. But, let it whet your appetite sufficiently to read more, learn more, and practice more. New skipper or old skipper, it never hurts any of us to take a refresher course, even self-taught — especially at the beginning of a new season.

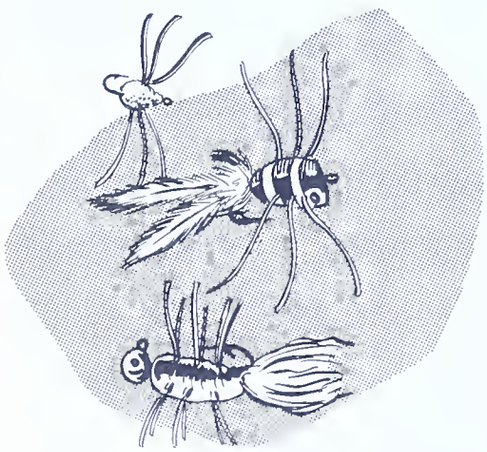
THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: A bullhead catfish is a tough customer, particularly if it lives in a muddy-bottomed pond. The pond may go dry for a period, but the bullhead will burrow down into the oozy bottom and stay alive for a long time, until the water returns.

Use rod guides large enough to permit the line to flow smoothly and the easy passage of knots that connect lines and leaders.

Wriggly rubber legs on surface poppers, which are fine lures for big bluegills, are there to make the imitation look like a big living insect. When a lure of this type is cast, the angler should first very gently twitch the rod tip to make the rubber legs work, and only afterward begin the popping and twitching action.



Fly lines made of synthetic material do not need frequent greasing, as silk lines did, but they do get dirty with constant use. It's a good idea to use line cleaner on them from time to time. This will remove the dirt and at the same time add a measure of buoyancy. Line dressing will do no harm, of course, but it is not absolutely necessary.

Keep an eye on fishing rods with guides lined with agate. This material is hard, but it chips easily, and nicks will wear the line. The more modern ceramic guides are less likely to be damaged, and they will make the line flow smoother, just as agate lined guides do.

Good bluegill dry flies are size 10 bivisibles in ginger, gray, black and white.

The same lures and baits that take large-mouth bass also are attractive to pickerel. But pickerel are especially attracted to spinners and to small wobbling spoons, to which a slim sliver of pork rind can be attached to provide added attraction.

Northern pike are not always found in shallow, weedy water, although this is a favorite feeding ground. When the weather is hot and the water warm, fish of this species can be found feeding in water as deep as 40 or 50 feet.

Glass and graphite rods that have the ferrules built in are entirely satisfactory and are no more likely to fracture than ferrules of metal attached to the rod sticks. Built-in ferrules have a distinct advantage. They flex with the rod instead of creating a dead area.

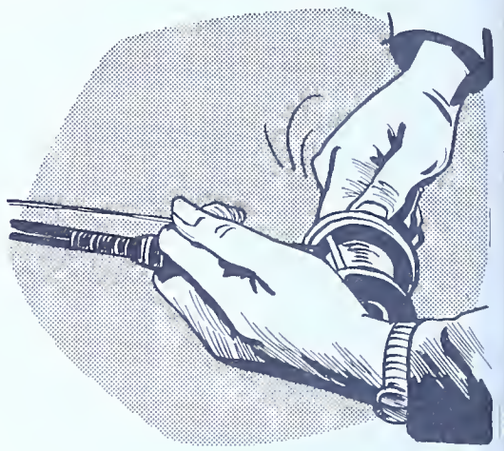
Fishing with wet flies is not a method that allows sloppy work on the part of the angler. Wet flies should be cast and worked with as much care and precision as are required for successful dry fly angling.

By late spring it is possible to fish all over a stream, especially in such feeding places as rocky shallows, along undercut banks and around obstructions in the water. Trout will hold to the deeper areas of the stream while the water is very cold, but they will move out in search of food when the water temperature rises to comfortable levels.

Streamers do not have to be big to be effective. At some time or other, the minnows in a stream are young and small. But they also are fish delicacies. Streamers as small as those tied on No. 10 hooks are worth trying.

Keep the strength of your leader tippet in mind. If you are using little flies and the leader tippet is 4X or 5X, all well and good. But if you change to a big wet fly or nymph or a streamer, change to a leader with stronger tippet, 1X or 2X for example.

Jigs of one-quarter or one-eighth ounce will take big trout as well as bass and walleyes.

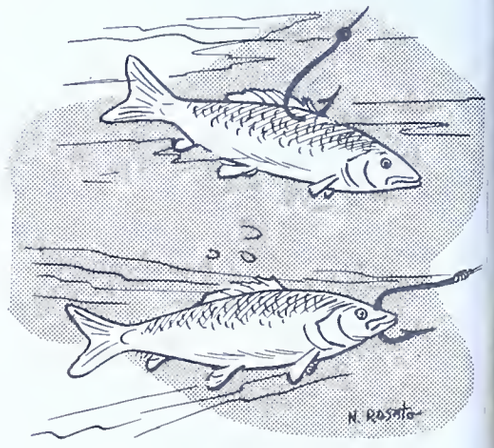


Smooth and tight respooling of monofila-ment line with either a casting or spincasting reel is easy. As one hand turns the reel handle, use the thumb and first finger of the other hand to exert light pressure on the line as it is reeled in. At the same time, the rod hand will hold the rod and reel firmly in position.

Whether fishing a fly for trout or a lure for pike or bass, one cast to an obviously hot spot is just not enough. So long as you do not spook the fish, continue casting to the spot. Often a fish will take the lure after as many as six or eight casts.

Setting the hook on the first nibble of a walleye on live bait usually means a missed fish. The walleye likes to mouth and torment the bait for a couple of seconds before really taking it.

Hook a minnow through the back for still fishing. It will live longer and be more active in the water. Hook a minnow through the lips for casting or trolling, so that the minnow maintains its natural position in the water.



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Delaware River Shad

PENNSYLVANIA
Angler

JUNE—1979

the Keystone State's Official FISHING·BOATING Magazine...

40¢ Single Copy





"Silent Spring" an understatement?

It was just about a year ago that the helicopter contracted by the Commonwealth engaged in spraying a pesticide over Poe Paddy State Park for the suppression of the gypsy moth; and, in violation of the plan, sprayed about a half-mile of Penns Creek, including some picnickers in the park before crashing in a nonfatal accident. (Contrary to rumors at the time, the Pennsylvania Fish Commission did not shoot the helicopter down!) But the spray, albeit aimed at the gypsy moth, effectively wiped out a good year class of the legendary green drake emergents, and destroyed a number of other beneficial aquatic insects at the same time. Our complaint resulted in a promise by DER to tighten up on instructions to the contractors to preclude a recurrence.

About seven years ago, DER was given authority over forest pest control, removing that pest control function from the Pennsylvania Department of Agriculture. Since that time, DER has followed with an enlightened program of *biological controls* — which program, if left to itself and *adequately funded,* could be the long-range answer to curtailing the ravages of those insects that are damaging our forests without the attendant poisoning of beneficial insects, and, certainly no less important — *fish life.*

In the meantime, the USDA is still feeding money into the Commonwealth for chemical sprays for the same purpose! We are absolutely desolated to see that these programs are still continuing, even though they have been proved ineffective . . . in fact, counterproductive over the years.

The USDA program, headquartered at State College, and operating under the name of APHIS, is proposing to spray some 48,000 acres of Pennsylvania woodland, including a number of beautiful trout streams — in spite of the fact that they will wipe out not only beneficial bird and insect life, but probably the *DER-introduced gypsy moth predator populations as well!* Spraying chemicals on the leading edge of gypsy moth advances would be like bombing our allies during a war!

The U.S. Environmental Protection Agency, acting under the Pesticide Control Law enacted in 1972, has been effective to the extent of placing about 2,000 chemical compounds on a "restricted" list because they involve 23 potentially hazardous ingredients, including substances known to cause (or suspected of causing) cancer, genetic defects, or other maladies. But — EPA relies on the states to supervise the enforcement of the law to the tolerance levels that have been established. A number of states have indicated their inability to keep up with the *35,000 pesticide products on the market* which involve about *1,500 basic ingredients!* It's a tough thing to fight a $3.5 billion-a-year business when agricultural spokesmen indicate that without all of these pesticides the annual farm production might be reduced by 30 to 60 percent.

It is appalling to us, however, to know that banned pesticides such as DDT, aldrin, dieldrin, heptachlor, and chlordane are still being used in Pennsylvania — as witness the orchard runoff that wiped out the trout ponds operated by the U.S. Army at Letterkenny Depot in Franklin County.

Again, the Pennsylvania Fish Commission is not opposed to the use of chemicals, per se, but it has to insist on compliance with the federal Pesticide Act, not only to protect fish and the aquatic organisms on which they depend, but because of the potential danger to human life.

More than twenty years ago, Rachel Carson's book "Silent Spring" sounded an alarm about pesticides, their use, and the harm they might do. Although everyone seems to assume that "something has been done," we feel that what has been done is still surrounded by vagueness and imprecision. If anything, Rachel Carson's alarm was *understated.*

Ralph W. Abele,
Executive Director

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

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ON THE COVERS

"For the angler willing to brave the structure and the possibility of lure loss, 'The Promised Land' is more than willing to offer up 'riches' that the Shakers who named the area never found," says author Loring D. Wilson. Story begins on page 14. Photos of Promised Land Lake by the editor.

MONTHLY COLUMNS

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James F. Yoder, Editor

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SALMON EGGS —

Editor's note: In our February issue, Mrs. Gerald Fox wanted information regarding the preservation of salmon eggs at home. Many have written with basically the same information supplied by Mr. Delano R. Graff, Chief, Division of Fisheries. We thank one and all for their help — especially reader Louis E. Anderson, of Easton, who sent the following note together with a brochure containing the most complete instructions on the subject we've seen thus far.

In regard to Mrs. Gerald Fox's request for preserving salmon eggs for bait, enclosed literature might help.

Have traveled a lot and always pass out the *Angler* wherever I think it will be the most help to fishermen.

My wife and I always enjoy the *Angler* and *Pa. Game News* and have been doing so for many years. Keep up the good work — we're with you.

Sincerely
LOUIS E. ANDERSON
Easton

HOW TO PRESERVE FRESH SALMON EGGS FOR BAIT

prepared by
Alaska Department of Fish & Game
Division of Sport Fish

Ask a half dozen veteran fishermen how they preserve fresh salmon roe for cluster egg baits and you may get that many different answers.

Experiments with most of the various methods used indicate the following three give the best results:

FREEZING FRESH EGGS

For preservation over long periods while closely maintaining original appearance, texture and odor, fast freezing and subsequent frozen storage of eggs is an excellent method. General procedures are as follows:

1. Cut fresh eggs into bait-sized pieces, spread on newspapers or paper toweling and allow to drain and harden overnight.

2. Double wrap baits in locker paper, seal in plastic bags or pack closely in glass jars to top of containers and seal with rubber-lined lids to exclude air. (If eggs are exposed to air during frozen storage, dehydration and oxidation will change their color, consistency and odor and make them unfit for bait.)

3. Fast freeze and store at temperatures of 0°F., or lower. (Slow freezing at higher temperatures forms large ice crystals which break down cell walls and cause eggs to become soft and mushy.)

SOFT CURING WITH POWDERED BORAX

The use of powdered borax on fresh eggs is a common practice among coastal fishermen. The borax not only aids in retarding bacterial spoilage but absorbs liquid and makes the eggs much more pleasant to handle. When properly processed, boraxed eggs retain the approximate color and texture of fresh eggs and milk up readily in the water.

1. Spread a thick layer of powdered borax (available from any drug store or super market) on newspapers or paper toweling.

2. Cut roe into bait-sized pieces, drop on paper, sprinkle more borax on top and roll baits in borax until completely covered.

3. Pack in containers and keep under refrigeration.

If preservation for long periods is desired — follow steps 2 and 3 under section on freezing. If firmer bait clusters are wanted — spread boraxed baits on newspapers and allow to dry and harden overnight before packaging.

HARD CURING WITH SUGAR AND BORAX

This method produces a very firm, deep red cluster-type egg which should keep for long periods without refrigeration or freezing.

1. Sprinkle skeins of eggs liberally with mixture of 50 percent each of powdered borax and sugar.

2. Put open container of eggs in refrigerator for 36 or 48 hours.

3. Remove, pour off juice and rinse briefly in cold water.

4. Drain, cut roe into bait-sized pieces on newspaper and allow baits to dry and harden in refrigerator for 48 hours.

5. Remove from refrigerator — invert glass jar over hot plate or gas flame and heat until it is just possible to hold container in bare hand.

6. Quickly pack ¾ full of eggs, drop a lighted piece of waxed paper in top of jar (this helps to exhaust the oxygen) and tightly screw on a rubber seal lid. Do not open until ready to use. *(Reprinted with permission.)*

"VIRTUALLY UNKNOWN"

Kootenay Trout Hatchery
Wardner, B.C.
V0B 2J0
December 19, 1978

Mr. Paul Byers
Chief, Cooperative Nursery Branch
Fisheries Division
Pennsylvania Fish Commission

Dear Mr. Byers:

I have read with interest several articles in the Pennsylvania Angler magazine which have briefly mentioned your Cooperative Nursery Branch.

I would appreciate any information which you could supply me with regarding your Branch's objectives and how you are trying to reach them. Your idea, from what I can gather, of having interested citizens involved in fish culture programs is virtually unknown in British Columbia. Do you consider your program to be successful, as well, has it turned out to be a vital part of your state's fish culture program?

Thank you for your time in answering my questions, and Seasons Greetings.

Sincerely,
PETER BROWN
Assistant Hatchery Supervisor
January 4, 1979

Mr. Peter Brown
Assistant Hatchery Supervisor
Kootenay Trout Hatchery
Wardner, B.C.
V0B 2J0

Dear Mr. Brown:

It is always very gratifying to find someone so far away interested in programs sponsored by the Pennsylvania Fish Commission.

The purpose of involving sportsminded citizens in the Cooperative Nursery Program serves several objectives which are probably best described in the Cooperative Nursery Branch "Statement of Policy."

1. Involve sportsmen directly in providing more fish to enhance the Commonwealth's catchable trout fishing program.
2. Provide fish for stocking of small, acceptable quality streams which do not meet size requirements of the Fish Commission's stocking program.
3. Promote mutual understanding of the Commission's programs.

We believe the rapport between organized sportsmen's groups that voluntarily sponsor Cooperative Nurseries and the Pennsylvania Fish Commission is invaluable and to a large degree responsible for the success of the program. Consequently, this

ıas resulted in a substantial increase of ponsors and numbers of fish released into ɔublic waters, particularly the past 13 'ears.

We are enclosing material relevant to he Fish Commission's Cooperative Nurery Program and if we can be of further ervice, please let us know.

Sincerely yours,
PAUL R. BYERS, JR., CHIEF
Cooperative Nursery Branch

"FISHING STORY"

I really can't believe how fast my first 36 ssues of the magazine have come and ɔone. I give the old issues to other anglers. With my renewal subscription, I would like o take the opportunity to relate a "fishing tory."

Tim Midas, his friend Donna, and I were fishing at Brady's Lake in the Poconos one warm and beautiful Sunday. It was getting late in the evening and the hree of us were tiring from a long day of ishing around. We had caught some perch ınd small pickerel but none of them were keepers. Alas, with the action nonexistent ınd the sun beginning to set, you can magine how the talk was starting to focus ıround the lake being fished out and that ıll the fish were too small to keep anyhow. So, it was now time to head for land and call it a day.

Well, the light was fading and we were ıbout three hundred yards from the boat aunch area. Tim was steering the boat, Donna and I were spinning with lures. It was at this time that I remember looking ɔut over the water and seeing a trail of ɔubbles about ten yards off the bow; this was not unusual, but what I saw afterwards certainly was. A huge, dark creature rose to the surface of the water and then dove under, and then rose and dove, and ust continued this weird behavior. Needless to say we all got very excited and tense. What was this creature? It looked like a four-foot-long musky or maybe a great ıorthern pike.

Tim and I got some larger surface lures ınd started casting around the perimeter ɔf the boat. We did this for about ten minutes just hoping that whatever it was would snatch up the lure and take off. Once the creature began following Tim's ure, and Tim, who is always saying "Why me? Why me?" was facially expressing "How about me? How about me?" But, what happened? Nothing, absolutely nothing! The fish turned away and then disappeared forever in a trail of bubbles.

Does a musky or pike exhibit said behavior of rising and diving and surfacing about one-third of its body? Or maybe we saw a toy submarine that someone was controlling from the shore. Whatever it was, it sure gave us something exciting to talk about throughout our trip home and to discuss with our mutual friends.

A reader always,
ROBERT D. CIPKO
Coaldale

If you were a subscriber for the past 36 months, Robert, you must have read all about muskies displaying such strange behavior all over the Commonwealth in our January, 1979 issue. Or did you give that issue away? At least four other fishermen have reported such behavior and it's reasonable to assume that many more have seen it but just never reported it. Apparently it is not uncommon. Ed.

A SUBJECTIVE VIEW ON QUALITY ANGLING

I think Del Graff's article in the November, 1978 *Angler* on quality angling was excellent, and clearly shows he has a good understanding of the issues and problems involved in trout management. His in-depth understanding coupled with results of the ongoing PFC's stream survey hopefully will result in farsighted management plans, with the quality of the coldwater resource the primary guide to trout management.

I agree with Del that quality angling is a subjective phrase as it relates to each angler. I feel objectiveness is something we can relate to management areas. I would say that a clean stream with a self-sustaining population of wild trout is a *quality management area.* For me, fishing in a quality management area would be quality angling regardless of fishing success. I may have other angling experiences that are more fun, or more successful, but somehow lacking.

I feel the essence of quality angling is *wildness.* Wildness should always be our goal. Wildness runs far deeper than whether the hatchery fish is or isn't an inferior product. Wildness is something that we respect, hold in awe, and find difficult to define. We feel a kinship with wildness and know that it's good. Wildness is – a glimpse of a deer at first light on opening day – the gobble of a wild turkey on a cold May, Potter County morning – a rattlesnake – a virgin hemlock – being lost in the woods – a place you can't walk through in a day – a clean stream with wild trout.

In our developing, changing world, each generation has its rendezvous with the land, and each generation is forced to compromise. Perish the thought of the developers and politicians chiseling away at the borders of our State Game Lands and State Forests 100 years from today. Slowly, wildness loses ground. Wildness is what we *must save.*

A well-defined management plan, that puts all types of fishing in perspective, will enable all anglers to approach each experience with the proper attitude.

JAMES C. DUNBAR
Turtle Creek

BASS SIZE COMMENT—

In February's issue there was an article on the raising of the legal size limit on bass from nine to twelve inches. The question in this article was would this actually help the bass population.There are presently three lakes in Pennsylvania that have a size limit larger than the nine-inch minimum. They are Colyer Lake (12-inches) Bruce Lake (15-inches), which *Pennsylvania Angler* mentioned back in the November 1977 issue, and Pymatuning Lake (10-inches). If there are any lakes where a study could be done on the effect a larger size limit has on the general overall bass population then these lakes could be ideal. I, for one, would sacrifice the 9-, 10-, and 11-inch bass for a stringer of lunker Pennsylvania bass.

LARRY AMENTI
Johnstown

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MEALS from the CREEL

by Arthur J. Michaels



Traditionally, fish and lemons have been "go-togethers." The writer explores the use of other fruits in delicious fish dishes. Photo courtesy Sunkist.

Fish + Fruit = Mmmmm!

The dictionary defines "fruit" as *"any product of vegetable growth useful to men or animals."* But for delicious and nutritious fish cookery, this definition barely scratches the surface. With these fourteen fruit questions, then, dive into a closer examination of using fruit in your fish cookery. You can create some delicious variety when you cook your catch with fruit.

1. Lemons are fruit, and I use them often in my fish cookery. How can I pick the best quality lemons at the store?

Pick up a fresh lemon in your hand. The best ones feel heavy and firm, and they have no soft spots, bruises, wrinkles, or discolored areas. It makes little difference if some lemons have thicker skins than others, so don't be disappointed if you pick thick-skinned ones. A thick-skinned lemon indicates that it's been affected by bad weather—too much heat, perhaps near-freezing temperatures, excessive wind, or unusually high or low amounts of rainfall. Growing in adverse conditions, a lemon grows a thicker skin to protect the goodness of the fruit's interior.

2. How can I get the most juice from fresh lemons?

First, plan ahead. You'll get a little less than three tablespoons of juice from one medium-size lemon. Five or six medium-size lemons will give you one cup (eight ounces) of juice. A lemon at room temperature will provide the most juice. Before you squeeze it, though, roll it on a smooth, hard countertop, pressing it moderately hard under your hand.

3. What's the best way to store lemons and lemon juice?

Frozen lemon juice will keep for a few months. If you freeze lemon juice in ice cube trays with small dividers, you need only remove small amounts from the freezer as you need them. Don't freeze whole lemons because the pulp holding the juice will burst, and upon thawing, your lemon will be dry and flavorless. Lemons will keep best for about five weeks stored in a plastic bag in your refrigerator. Keep lemons at room temperature no longer than a week.

4. Is fresh lemon juice nutritious?

Yes. According to the United States Department of Agriculture, one medium-size lemon features low calories, only twenty-four, and about 40 mg. of Vitamin C. And, good news for dieters

or persons on a sodium-restricted diet, lemons have only a trace of sodium and large amounts of potassium.

Here is a delicious lemon sauce to try with your favorite fillets.

BROWN LEMON SAUCE

1 teaspoon freshly grated lemon peel
¼ cup freshly squeezed lemon juice
1 tablespoon minced onion
2 tablespoons butter
2 tablespoons flour
1 can (10½ oz.) chicken consomme
dash crushed tarragon leaves
pepper to taste

In a small bowl, combine lemon peel, juice, and onions, and set aside. Melt butter in a small saucepan, and stir in flour to form a smooth paste. Slowly stir in consomme, and bring to boil over medium heat. Cook for three minutes. Add lemon mixture, tarragon, and pepper, and cook two more minutes. Pour piping hot over broiled fillets.

5. How else can I use lemons?

Take a freshly cut lemon and rub fillets or fish steaks with it. The lemon adds flavor and aroma to your cooking fish. In addition, just before washing rub your hands and cooking utensils with a cut lemon to remove fish odors.

6. What other fruits go well with fish?

Grapes for one, have been a favorite for a surprisingly long time. The ancient Egyptians were growing grapes as far back as 2400 B.C., and the God Bacchus is ancient Rome's positive affirmation of the value of grapes. After you try the ***Brown Lemon Sauce,*** try this creamy fish sauce using grapes.

GRAPE SAUCE FOR FISH

2 tablespoons butter
2 tablespoons flour
1 cup chicken broth
½ cup dry white wine
½ cup heavy cream
1½ cups seedless grapes
salt and pepper to taste

Melt the butter in a medium saucepan, and blend in flour. Cook over low heat, stirring often. Add chicken broth, wine, and heavy cream. Cook until mixture thickens. Add grapes, salt, and pepper to taste, and heat (don't boil). Serve hot over fish fillets.

7. Aren't grapes fattening?

Hardly... one cup of grapes contains only about 100 calories, and like lemons, grapes are low in sodium.

8. How do I pick the best grapes at the store?

Look for bunches with firm, wrinkle-free grapes, and pick a bunch with no leaking berries. Grape stems should be green and pliable, and each grape should be plump and well-colored.

9. What about storing grapes?

Store grapes in the refrigerator. Grapes do not ripen after harvesting, so they'll stay fresh only a few days. Before you use grapes in a fish recipe, wash bunches under cold tap water and pat them dry.

10. What kinds of grapes are available now for use in fish cookery?

In June, varieties to try in fish cookery include Perlette (mild-tasting, green berries), Black Beauty (early black variety, large berries), Cardinal (mild-tasting, dark red berries), and Exotic (black grapes in long clusters). In July, add varieties of Thompson (large seedless, light green berries), Red Malaga (sweet red grapes, large clusters), and Ribier (mild-tasting black berries). All in all, there are about 60 known varieties of grapes, with fourteen main table varieties.

11. Okay. Lemons and grapes . . . is that it? What other fruits can I use to enhance my fish cookery?

Try apples! Believe it or not, apples, like grapes, have held an important place in cookery since the start of agriculture in Europe. Apples are mentioned in the earliest writings of the ancient Egyptian and Babylonian civilizations. Apples are also mentioned in the *Bible* and in the 2500-year-old writings of the Greek, Theophrastus.

The Pilgrims of the Massachusetts Bay colonies planted the first apple trees in America, and restless Dutch settlers pushing westward planted the first apple orchards in Pennsylvania. By the mid 1700's, apple trees were well-established in the Keystone State, New York, Ohio, and Indiana.

12. What kinds of apples are best to use in fish cookery?

Today, there are 7,000 known varieties of apples grown worldwide. However, the United States Department of Agriculture lists 117 varieties which are grown in sufficient numbers to be profitable for commercial growers. For use in fish cookery, the most popular varieties of apples are Red Delicious, Golden Delicious, Winesap, Rome Beauty, Jonathan, and Newtown. Here is one way to use apples in your fish cookery.

BAKED FISH WITH APPLES

2 pounds fresh fish fillets
2 tablespoons finely chopped green pepper
2 cups canned tomatoes
2 tablespoons flour
¼ cup finely chopped onion
3 tablespoons butter
1 fresh, ripe apple, pared, cored, chopped
1 bay leaf
1 clove
½ teaspoon salt
½ teaspoon sugar
dash pepper

Coat the bottom of a two-quart baking dish with butter, and arrange fish fillets in the dish. In a medium saucepan over medium heat, melt the butter and cook the green peppers and onions until soft. Slowly add flour and mix well. Add tomatoes slowly, stirring the mixture. Add the apples and the other ingredients. Stirring constantly, cook until mixture thickens. Remove the bay leaf and clove. Pour mixture over fish in baking dish. Bake 40 minutes in a preheated 350° F. oven. Serves six.

13. What about using dried fruit?

Consider dried fruit, like apricots, to be power-packed nutrition. It takes several pounds of fresh fruit to make one pound of dried fruit. For this reason, you should use them in your fish cookery or serve dried fruit on the side with a meal from your creel. Store unopened packages of dried fruit on the shelf, and refrigerate opened packages in an airtight container.

14. What about buying and using frozen fruit?

Besides fresh and dried fruit, canned and frozen fruit is also available. Consider also the variety of ways in which fruits are processed — sliced, chunked, crushed, halved, and whole. Your major concerns in buying fruit for fish cookery are quality, quantity, and nutritional value.

Read labels carefully, and plan your fish meals. Then decide what kinds of fruits would fit your fish meal plans best. Remember that as summer approaches, "fish-plus-fruit" equals a delicious light meal without sacrificing nutrition.



Part V — Of Einsteins, da Vincis & Kids with Cane Poles

I thought life would become simple once I turned to fishing as a profession.

One day I got up at four in the morning and drove down to Raystown to catch a few bigmouths — packed the boat, the cooler, the rods and reels, just like an average fisherman. When the sun came up the bass were rising all up and down the shoreline, feeding among the colored leaves that had fallen from the trees onto the water. I used my lucky Jitterbug, but nothing happened. I put on a diving plug I had used since I was ten years old. Still nothing happened. Well, I take that back, something did happen. I forgot that when the Engineers surveyed for Raystown Lake all the trees and brush and grapevines and what all else that would be under at least twenty-five feet of water were left standing, and I latched onto this waterlogged national forest and lost my diving plug! That's what I was doing at "Joe's Lucky Tackle Shop" that afternoon with my broken line and empty stringer.

"Hiya, buddy. Can I help you?"

"Yeah," I said. "I lost my favorite diving plug down at the lake this morning and I wanted to replace it. Here, I have a snapshot of it in the mouth of a five-pound largemouth I caught last year. Can I get it in the same weight and color?"

He looked at the picture, then at me. "You fished with one of these?"

"Yeah . . . that's a 'Feeble-Minded Minnow,' three-eighths ounce, fish scale pattern . . . do you have one?"

"What are you, some kinda nut? That's a hunk of balsa wood painted to look like a fish, with hooks on it!"

"Isn't that the idea?"

He looked at me rather pitifully. "Where you been for the past twenty years, buddy? That . . . that *thing* went out with braided casting line."

"Here, look here." He took something off the shelf. "This is where the action is these days, buddy. The Johnston's Silver Plated Submersible! It'll dive to any programmed depth in intervals of 0.05 feet and send back soundings of pressure and temperature. You can get it in either LED or liquid crystal readout."

"Sorry, I don't think so."

"Okay, it's your decision. How 'bout this one, the Gas Powered Creek Chub, huh? It runs on a CO_2 cartridge, hidden inside the dorsal fin . . . does the mile in five minutes flat."

"Really, all I want is a plug like the one I lost."

Those Crazy People . . . Fishermen

by E. W. Fisher

"Here, just the thing! Put your ormy mitts on that beauty, huh? ure vanadium steel alloy, comes in eventeen different weights from 0.1 to .63 ounces. The eyes open and close, nd the fins move back and forth. For dollar extra I can show you this iodel over here, exactly the same xcept for the working gills and the olyvinyl chloride air bladder."

"Look, maybe just a weedless spoon, uh?"

"A what? Aha! this'll do it. This fe-size replica of a small three-week ld yellow perch features a homing evice that will send...."

"Please, it's been a hard day."

"No fish, huh?"

"Not even a strike."

"I'll bet you any money you were shing in an area where the oxygen evel was below 4 ppm, or where the bottom contained fewer than 17.5 snags per square yard — no fish in a place like that. What you need is one of these electronic sonar-triggered fish finders like this beauty here. If it can't find any fish, it calls them in their own native tongue — bilingual, calls bass and pike both."

"No, it wasn't that. I could see the fish...."

"You could *see* the fish? You were actually looking at the water? I feel sorry for you, buddy, I really do. Modern science has completely eliminated the need for us to, Heaven forgive me, *look at the water*. We just watch the cathode ray tube and the fish finder will give us encoded data on bottom configuration, shoreline contour, water temperature, oxygen content, and concentrations by weight or volume of twenty-seven different pollutants."

"I don't feel too well...."

"This baby over here is only $999.98 and will even tune in on the regional college or pro football games, provided of course that coverage is not blacked out in your local area."

"Please...."

"Or the deluxe model, priced at 15% off, it will propel your boat while you fish in any kind of water. It's adjustable from 0 to 35 miles per hour and has an adaptor for when the country goes metric so you won't have to remember all the conversion factors. And it gives you an audible and visible signal when you're within casting range of a legal musky."

"Maybe a half-dozen rubber worms?"

"Rubber or polyethylene? Yellow, amber, orange, crimson, indigo or black? We used to carry them in #2 Red, but the FDA made us recall them because they were linked to cancer in laboratory carp."

I could feel tears coming. "Some barbed hooks?"

"Snelled or unsnelled? #1, #4, #6 or #12? Brass or stainless? For $12.99 I can give you a gold-plated #21 reverse-shanked beauty that floats and you can tie your own fly on it, how's that?"

"All right! All right!" I screamed, pulling at my hair. "Here's fifty bucks — give me anything! Go all the way!"

And so, fully outfitted with a Sonic Submersible Pseudoshad, I went down to the river that evening and sat down near a little kid with a cane pole and a can of worms. My new plug almost got away when I opened the box, but by diving at it with my Triple-stranded Braided Acetate Landing Net with the rolled aluminum handle I managed to snag it and drag it back up the bank, whereupon I sat down and tied it onto my No-twist Fluorescent Monofilament Line and prepared to make my first cast.

The little kid watched me while I sighted through my new Infrared-triggered, Hand-held Fish Spotter at the middle of the river and then cast the Pseudoshad out into the water, watching its progress on my Tri-color 19-inch Cathode Ray Tube Plug-watcher until it hit the surface, then switching over to the Underwater Sonar Mode and following it until it stabilized itself at 7.875 feet and 56.2° F. The oxygen content of the water was 4½ ppm and there were only traces of all twenty-seven of the pollutants recognized as harmful to bass and pike.

I lit my pipe and was settling back to read *Einstein's Quantum Theory as Applied to the Upper Juniata* when the little kid next to me jumped to his feet and pulled in a big channel cat.

"Nice," I said.

"Thanks, mister!"

Poor kid, I thought, I hope he doesn't feel bad when I start pulling in 4.25 fish per kilosecond.

A buzzer went off on my console, and I looked at my watch to find that it was almost time for Monday Night Football! The screen went dark for a millisecond and Howard Cosell's face appeared, superimposed over a red-line contour of the bottom of the river and a columnar tabulation of the number of seven different species of fish present within a fifty yard radius of my Pseudoshad, plus that evening's news headlines.

The little kid jumped up again, and he had on a giant carp, and it took him fifteen minutes to bring it in.

"Nice," I said.

"Thanks, mister."

I watched him unhook the big carp.

"Mister?"

"Yes?"

"Why aren't you fishing?"

I looked at my Fish Finder just in time to see the opening kickoff in the Pittsburgh-Cleveland game wiped out by a big computer-enhanced LED display that said "TILT!"

"You got another one of those cane poles, kid?"

There are old boaters . . .
there are careless boaters . . .
there are no old careless boaters!

Try Playing it Safe — Wear a PFD!

by Virgil Chambers
Boating
Education Specialist



In safe waters, youngster demonstrates one hazard of an improperly fitted PFD. In another situation, this could be an unnecessary tragedy for both the wearer and his family. Don't chance it!

Prior to the 1930s, the so-called life jacket was no more than a bulky, uncomfortable device found in life rafts aboard seagoing vessels. In 1932 the Pennsylvania Fish Commission enacted its first motorboat regulation concerning equipment requirements, stating that motorboats "should be equipped with fire extinguishers, and *life preservers* sufficient in number to take care of the capacity of the boat." It wasn't until 1971, however, that the life preserver requirement was extended to include nonpowered craft. While this regulation was certainly a major step in water safety, it still did not insure the capsized and overboard boater would stay afloat in an emergency. Most boaters still found the devices cumbersome and chose not to wear them.

In recent years the life jacket has become known as the PFD (Personal Flotation Device). The reason for the change in name is simple: during accidents at sea people were found dead in the water while wearing *life* jackets — *life preservers*; they didn't drown — they died from *exposure* (hypothermia). Thus, the name "*life*" jacket was a misnomer. Water kills not only by drowning, but also through the drastic changes it presents to the body. Therefore, changes had to be made in the reference to these "preservers of life," and a change in attitude had to make them a *personal* item. It had to be adapted to the individual needs of the wearer while still supplying the needed buoyancy to keep the wearer afloat. This opened the market to a vast array of PFD's . . . more attractive in appearance, and more comfortable to wear.

However, while the means of survival are here, the grim fact still remains: very few people wear the flotation device when boating, fishing, or hunting from a boat. The reasons vary, but the excuses are all poor. Some of the more common: "It's too restricting . . ." "It's too hot . . ." or, "I can't cast or paddle with it on."

Another excuse that isn't always verbalized is that wearing a PFD is just not "macho." Lt. Commander David Smith of the U.S. Coast Guard referred to this excuse as the "John Wayne Syndrome," relating it to the movie "*They Were Expendable*," in which John Wayne portrays a PT Boat Captain, and the only member of the crew not wearing a life jacket. (Perhaps it would have ruined his image.)

The John Wayne Syndrome has got to be the worst excuse, considering the special tailoring now available for today's sportsman. PFD's can now offer the wearer warmth and comfort; and, while being a totally approved PFD, can look like any other well-made outdoor jacket, hunting or fishing vest, or the fashionable foul weather gear.

There are five major classifications of flotation devices, although the recreational boater need only concern himself with four.

TYPE I LIFE PRESERVER — Gives over 20 pounds of buoyancy and is constructed to turn an unconscious person from the downward position to a vertical or slightly backward position. Acceptable for all size boats.

TYPE II BUOYANT VEST — Ha at least 15.5 pounds of buoyancy. I is also designed to turn an uncon scious person from the downwar position to a vertical or slightl backward position. Again, accept able for all size boats.

TYPE III MARINE BUOYANT DE VICE — 15.5 pounds of buoyancy, o better. This is the most popular o all types of flotation devices. How ever, this one is *not* designed to tur the unconscious person face up, bu will keep the conscious perso upright, or in a slightly backwar position, with very little effort Normally more comfortable tha most for water sports. Acceptabl for all size of boats.

TYPE IV THROWABLE DEVICE — At least 15.5 pounds of buoyancy Designed to be held or grasped, *no worn.* Examples of this type are ring buoy or boat cushion. Accept able for boats less than 16 feet an canoes and kayaks regardless o length, and as *throwable device only* for boats 16 feet and over.

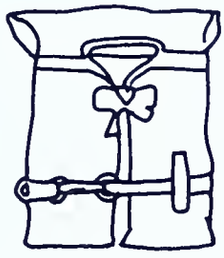
One may feel that 15 pounds o buoyancy isn't much to stay afloat however, studies have indicated tha the average adult weighs from 10–1 pounds when immersed in water Therefore, those Coast Guard ap proved PFD's will be most adequate i keeping one's head up out of th water.

There is still another consideratio for wearing the PFD besides th obvious "insurance investment": stat and federal laws require it. In Pennsyl vania, as in many other states, the lav

TYPES OF PERSONAL FLOTATION DEVICES



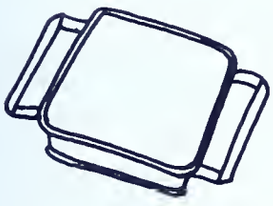
LIFE PRESERVER
(Jacket Type)
TYPE I



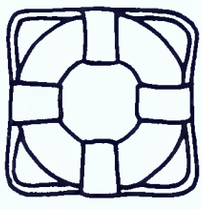
BUOYANT VEST
TYPE II



SPECIAL PURPOSE
BUOYANT DEVICE
TYPE III



BUOYANT CUSHION
TYPE IV



RING BUOY
TYPE IV

nowing the "Type" designations for meeting legal requirements is important. But knowing how to use them properly, then using them, is even more so!

quires that all vessels have on board Coast Guard approved personal otation device (PFD) for each rson.

Boats less than 16 feet in length, d all canoes and kayaks of any ngth, can satisfy legal requirements carrying one approved wearable vice (TYPE I, II, III) or a throwable YPE IV) device for each person on ard.

Boats 16 feet and larger must have e approved wearable device (TYPE II, III) on board for each person and addition, one throwable device YPE IV) must also be on board.

Water-skiers must wear a Coast uard approved TYPE I, II or III vice when skiing on Pennsylvania aters. A ski belt is *not* an approved vice. Many special purpose TYPE I devices are designed especially for aterskiing. The TYPE II (horse collar) device, although meeting legal requirements, is *not recommended* for skiing at high speeds, due to the possibility of neck injury upon impact with the water at a fast rate of speed.

All PFD's must be in "good and serviceable condition," with the Coast Guard approval tag or stencil clearly legible. Except for normal rub-wear, the physical construction should be as intact as when the device was purchased. The PFD should not be torn or slit in any way, and there should be no torn straps, broken or missing buckles, or broken zippers.

PFD's of TYPE I, or II, or III must be "readily accessible." That is, they must be stowed where they can be reached quickly and safely for effective use under emergency conditions. Devices kept in their original, sealed wrappers, or *locked* in compartments are not considered "readily accessible." TYPE IV PFD's must be "immediately available" or "in-hand" in a single movement.

In addition, another special regulation worth mentioning, is that when boating on bodies of water owned by the Pennsylvania Fish Commission, or the Bureau of State Parks, PFD's must be worn by children under nine years of age and all nonswimmers.

Believe it or not, the most frequent boating law violation with which the Pennsylvania Fish Commission has to contend deals with PFD requirements. Tragically, over 70% of our boating fatalities involve people who were not wearing PFD's. However, 85% of these had PFD's onboard.

It must be understood that, while PFD's can greatly increase one's survivability, they don't do a thing if the device is not used correctly.

"A little girl whose life preserver was on backwards is dead and her father is missing after their 12-foot fishing boat capsized on a windswept lake . . ." read the newspaper headline.

Clearly, this life *preserver* did little to protect this precious life. Since the devices come in different styles and sizes, and were designed for a particular body type, correct fit and proper adjustment to the person wearing it is imperative if the margin of safety it can provide is to be obtained. In addition, different PFD's are more suitable than others for a variety of water activities, and this should be considered before selecting the device. Purpose, coupled with maximum safety, and the greatest comfort will make for a more enjoyable outing.

Periodic testing of all PFD's stowed aboard should become a habit. Practicing swimming while wearing a PFD, and getting to know its characteristics is essential. Try putting on the device while you're in the water — it's not quite as easy as it sounds. Also remember — a PFD should not be considered a substitute for good swimming ability. A PFD is merely an aid to buoyancy. Swimming skill is still the basic ingredient of water safety.

The little girl just mentioned didn't drown because she wasn't wearing her PFD, but because she was wearing it *backwards*. PFD's are to be used, and used properly. Is there anything more personal or precious to you and your family than your life? Use common sense and wear that PFD . . . and wear it properly!

Will Raystown's Stripers be "Stars" Forever?

by Wes Bower



If "seeing is believing," the author's striper should lay to rest any doubt a stranger to Raystown's newest fishery might have entertained.

Raystown Lake anglers certai aren't anymore patriotic than oth segments of the American public, b they are most assuredly in the envial position of singing a revised version "Stars and Stripes Forever."

The reason for this unrivaled glee the success of the striped bass progra in this 8,300-acre Corps of Engine impoundment. "Success," a word w many connotations, can mean diff ent things to many people and lo knowledgeable anglers held off calli the striper program a success until the cards were on the table. Now, af five years of evaluation, the story striped bass fishing speaks for itse How did it all happen? Well, let's st from the beginning.

Man is an orderly cuss by natu and likes everything classified in neat fashion, and placed in its prop environment. Over the years he h classified mammals, fish, birds, et and then placed them in certain ca gories. Further subclassifications i clude cold-blooded animals and war blooded animals; coldwater fish a warmwater fish; freshwater fish a saltwater fish. This list could go and on as subclassifications get mo refined. Anglers, too, don't like ma ters pertaining to their sport taken o of perspective. Like their tackle box they believe that in the fishing wor "there's a certain place for ever thing."

When a fish, bird, or mammal found outside of its normal enviro ment, this causes a great deal of inte est, confusion, and downright unre among outdoors people. This h proven to be the case with the strip bass, or rockfish as it is sometim called.

The striper, as everyone knows, is saltwater fish. It is also anadromou which is a fancy term meaning spends its life in salt water but w ascend or run up freshwater streams rivers to spawn. This spawning run h gone on for centuries and no one pa much attention to it until back in t early 1940s when an unusual incide occurred down in South Carolina. large impoundment called the Sante Cooper Reservoir was being co structed, and when the dam gates we closed a large supply of adult strip bass that had been making the spawning run up the Santee a Cooper Rivers were trapped. Sever

ears later the reservoir fishermen egan to catch stripers: big stripers, mall stripers, and all sizes in between. his caused a great deal of interest nd confusion with the fisheries iologists since we now had a saltwater sh living and thriving in fresh water. Vhile things were now not as orderly s they had been, no one cared, for it ırned out to benefit the angling raternity.

From this inauspicious beginning ne striped bass program progressed to ther states having large impound- ients. Farsighted fishery manage- ient personnel began experimenting ith planting the young striped bass ngerlings in their lakes. In many ases the stocking worked to such a egree that the success of the fresh- ater striper program is now a matter f record.

The Pennsylvania Fish Commission ot involved in the striped bass busi- ess a few years back with several xperimental plantings being tried in ommonwealth lakes. Little was ever en or heard about these early Penn- ylvania stripers and the results were ss than encouraging. More deter- ined than ever, and realizing the otential of the mammoth Raystown roject, the management section of the ish Commission tried again by intro- ucing 20,875 striped bass fingerlings nto the lake in 1973. During the ollowing years, and before 1978, over 94,755 "rocks" were stocked in the mpoundment in order to insure uccess.

These plantings were not hybrids, ut stripers of the purest variety. Sure nough, the program looked like it was aying off when in 1976 Jim Valen- ine, Waterways Patrolman for the rea, began to get reports of striped ass 12 to 14 inches long being taken y the lake fishermen. At first local nthusiasm was limited. After all, hat was so great about a 12-inch triped bass when anglers were catch- ng five and six pound largemouths! Raystown fishermen were quick to gree, however, that these little strip- rs were super fighters, and what they acked in size, they certainly made up or in spunk. In the back of local nglers' minds was the thought that hese fish just might grow up to be real nonsters. And then, what a fight they ould have on their hands.

Dreams do come true! The year 978 might well be called the real beginning of serious striper fishing at Raystown for this was the year when bass fishermen began to take note of what was going on, realized what they had going for themselves, and decided to do something about it. They began to experiment, alter their fishing methods, concentrate on different areas, exchange information, try new lures, and finally began meeting with some degree of success. Stripers 5, 7, and some up to 9½ pounds were now being caught regularly. The new local breed of striper fishermen were quick to agree that the strength and stamina of the rock was even greater than their first love — the largemouth bass!

As with other types of fishing, certain patterns began to develop and local fishermen were quick to catch on to the fact that, like any other fish, stripers have their favorite holding areas. Raystown is a mountain-valley lake with Terrace Mountain running north and south and bordering one side of the impoundment. The other side features a series of ridges. The result is coves, bays, and sharp points of land jutting into the water giving shallow areas with nearby deep water escape sanctuaries for the stripers. These points proved to be the hot spots where the larger fish could be taken with some degree of regularity.

The early morning hours and again the last hour of daylight and on into the night proved to be prime times to find the stripers feeding on the surface at these points. Fishermen also found that a baitcasting or heavy spinning outfit loaded with 12- or 15-pound-test monofilament was just the ticket in the way of equipment. At the business end of the monofilament was a silver or gold rebel or a rapala-type lure about five or six inches long. Raystown Lake fishermen were learning and beginning to consistently take big stripers with these or similar type rigs.

It is said that 1978 was the beginning of the serious striper fishing and this is documented by the outstanding catch made by two local anglers on the night of June 20. Frank Beaver and a companion had a busy 45 minutes. When the action was over and the fish weighed, the total weight of the six stripers was a whopping 42½ pounds. The story of this catch spread rapidly and heavy fishing pressure for the rocks during the remainder of the month accounted for a good number of fish in the seven- to nine-pound class being brought to boat.



Striper terminal tackle differs little from conventional bass "medicine," but a heavier line, and a rod and reel to handle it, is recommended.

Ron Grove, a local angler who is probably one of the most enthusiastic, as well as successful striper fisherman, has some definite ideas and feelings about the rocks. Ron said, "We have already proved that there are thirty-inch, fifteen-pound stripers in the lake. These fish were hooked by experienced and knowledgeable fishermen. The possibility of thirty-six-inch fish

weighing 20 or 25 pounds is, I believe, a distinct possibility." Ron, who has caught some hundred or more stripers from early summer to late fall in 1978, feels that at the present time regular bassing equipment with fourteen-pound-test line is sufficient. He does speculate, however, that as the fish get larger serious striper fishermen will be going to modified saltwater tackle and heavier line.

Frank Beaver, another local angler who catches his share of stripers, agrees with Ron and adds, "When you're hooked fast to a striper you better have first class equipment and know how to use it or they'll make a fool out of you in a hurry." Ron and Frank are insistent about tying their lures directly to the monofilament line without the use of snaps. They feel it makes for better lure action and eliminates the possibility of any potential mechanical failure of the snaps. They also stress the need for a good quality reel with a smooth-working drag. Both agree that stripers can and do strip 15 to 20 yards of line and make the longest runs of any fish they have tied into. It is generally agreed that a good number of large Raystown stripers have been lost because of faulty and cheap equipment.

While the minnow-type lure seems to work best on feeding rocks, experimenting fishermen have come up with additional terminal gear that has accounted for some fine catches. Surface plugs, particularly the popper types in a perch finish, have been productive at times. Spinnerbaits with chartreuse skirts and silver blades are used frequently, as well as lead-headed jigs. The jig which was originally designed for use in salt water and has been an old standby striper lure along the coastal areas for many years. Freshwater striper fishermen are finding them to be just as effective. The most popular local jig pattern seems to be ½ to ¾-ounce head dressed with a pure white bucktail.

Waterways Patrolman Valentine, who stocked the first striper fingerlings in Raystown in 1973, is equally excited about the striper program. He comments, "I've watched this program develop from the beginning and it looks like we have a real winner here at Raystown." Valentine collects several scale samples from as many different stripers as possible. These are then sent on to the PFC Fisheries Management Section with information as to length, weight, stomach contents, and date caught. The Fish Commission biologists, by magnification of the scale sample, can then determine the age and growth rate of the fish. To date, growth rate has been most encouraging and Raystown stripers seem to be adding weight at a faster rate than their saltwater cousins. When asked why, Waterways Patrolman Valentine replied, "At first the young stripers seemed to be foraging along the shorelines eating anything they could find. We had quite a number of bluegills, sunfish, crawfish, and other panfish varieties identified in their stomach contents. During this past summer, however, large schools of gizzard shad have been showing up all over the lake and the stripers are concentrating their feedings on the shad. By following the schools of shad they can find a great deal more food without expending much energy and this accounts for the faster growth rate."

This type of feeding habit is something that must be remembered when attempting to catch stripers. It's sort of a feast or famine type of operation for, most of the time, when you catch one fish, there are many more in the immediate area. Working a jutting point for ten or fifteen minutes should produce a strike if a school is in the area. If no action occurs within this short period of time, fishermen have learned to get moving and try another area in an attempt to locate the fish. Many of the serious Raystown striper fishermen lean toward the fast high performance bass boats as their means of getting around the lake. Many of the boats are equipped with motors from 85 to 140 horsepower, enabling them to cover several miles in just a few minutes, and it doesn't take long to move from point to point while hunting stripers.

Night fishing is extremely exciting as well as the most productive time to hang on to the large "rocks." Extreme care must be taken when approaching a point so as not to spook the feeding fish for one careless thump of a tackle box can send them heading for their deep-water retreat. Bright lights over the side of the boat are also taboo and can send the stripers heading for their



Dave Messenger, from Centre Hall, and Nick Lambert, from Entriken, located a school of stripers and took six beauties averaging 18 inches in length.

anctuary.

The striped bass is a high-strung emperamental cuss. Even stocking he fingerlings can be a real chore ince inexperience in handling them an result in the fish going into shock nd turning belly-up. Fish Commis-ion personnel have learned to over-ome this trait and stocking losses are ow minimal. This high-strung per-onality does, however, continue to ollow the striper throughout its life nd fishermen were stunned to find hat these battling fish give up when anded and die almost immediately. The striper is a high-strung fish in the rue sense and will literally fight to its leath.

As you may have guessed by now, when you're into stripers the action is ast and furious. Two fishermen, fish-ng from the same boat, often will hit nto a good fish at the same time. For his reason many Raystown fishermen re using a gaff for landing their rophies rather than depending upon a anding net. A landing net, while it loes a good job, seems to have a endency to tangle up the hooks in the nesh to such a degree that much valu-ble fishing time can be lost.

Seasoned striper fishermen seem to gree that the older and larger stripers become extremely selective in their choice of foods. It seems logical to assume that as the Raystown stripers get more age to them they will turn to the selective gizzard shad as their primary food source. This preference for shad has occurred at many other similar large impoundments throughout the United States. Lure manufacturers were quick to enter the market by introducing a line of shad imitators and many of the known brands do carry one or more shad type lures that have an amazing resemblance to the real thing. It is quite possible that present day effective lures on Raystown Lake may soon take a back seat to these shad imitators. Local anglers are already adding them to their tackle boxes.

We can do a great deal of speculating about the future of fresh water striper fishing in Pennsylvania. We know, of course, that the Raystown experiment is a success. The unknown factor is the maximum size these superfighters will reach in these northern latitudes. Thirty or 40-pound fresh water stripers are being caught in some of the southern impoundments; but, remember, their growing season is much longer than in Pennsylvania. Will 30-pound rocks ever be caught in Commonwealth waters? Knowledgeable striper enthusiasts think so. Locally we like to believe that the site will be Lake Raystown, but perhaps it might even be some unbuilt impoundment still on the drawing boards. Who knows what the next twenty years holds for Pennsylvania's striper fishermen?



Ron Grove, author's companion on many a striper "hunt," came up with a mixed bag: two stripers and a largemouth that wanted to get into the act.

Although striper fishing is still in its infancy here in Pennsylvania, our anglers are the type of people who are quick to grasp the feel for an exciting outdoor experience. Picture, if you will, a late summer evening with the last pink glow of sunset reflecting on the water. Calm, clear, quiet; the serenity of nature at its best. Then, all of a sudden violent splashing startles you into an abrupt awareness as you see a school of baitfish skipping along the surface. Next, the sound and sight of stripers slashing, ripping and tearing at the bait, water boiling as the feeding frenzy begins! The excitement of schooled stripers feeding will make your heart beat a mile a minute. If this doesn't make you a "rock" convert Mister, then you're not a fisherman!

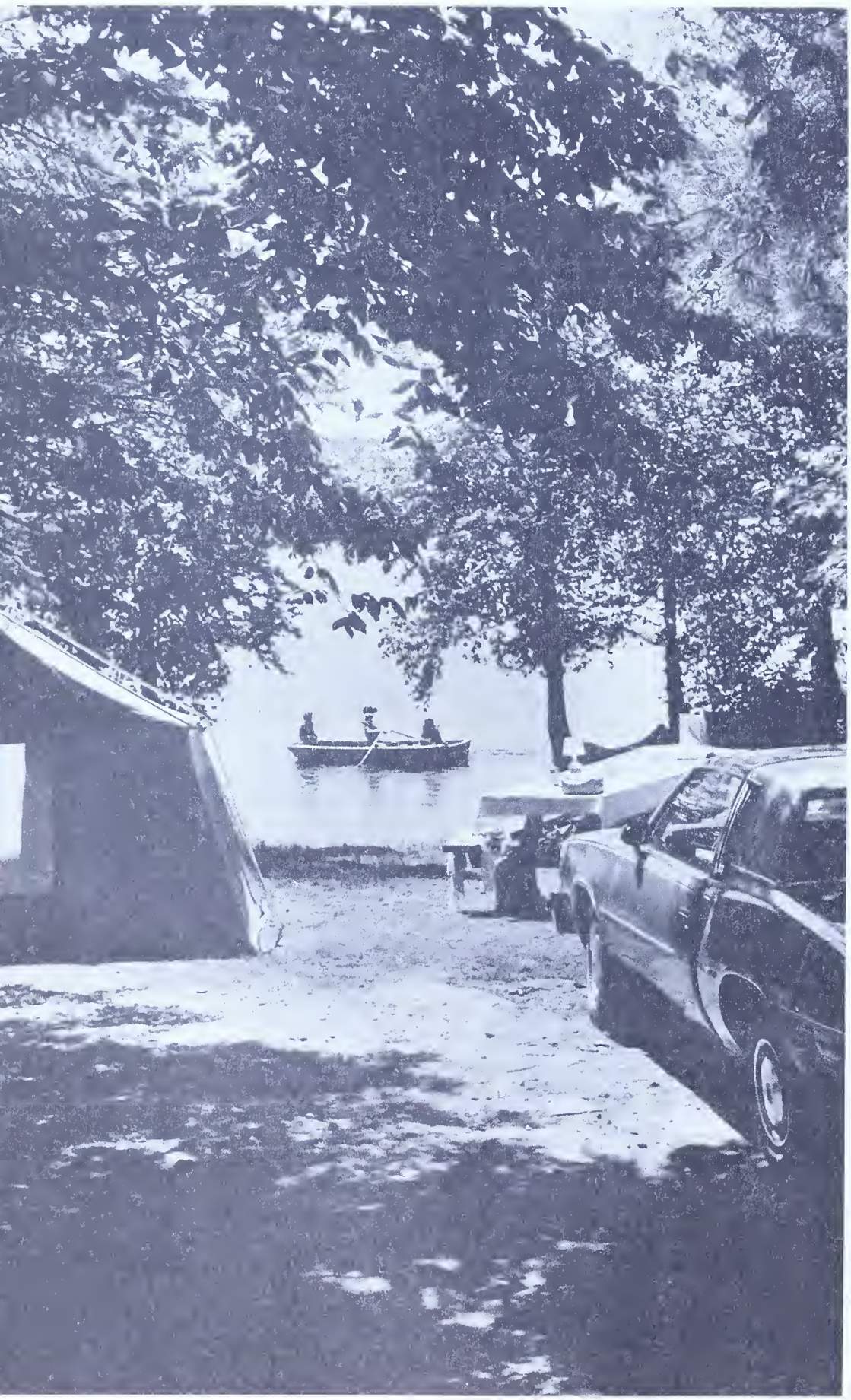
BAKED STRIPED BASS stuffed with Largemouth Bass

Raystown Lake fishermen sometimes bring home a mixed bag and so was the case when a local angler caught a nice striper and several largemouth bass one evening. To add a final touch to a social evening, his wife came up with the following recipe. Believe me, it was great eating and I hope I'm invited back.

1 striped bass 7 or 8 pounds
1 onion, chopped fine
1 cup of chopped celery
1 tbsp. chopped parsley
2 tbsp. margarine
2 cups bread crumbs
Fillets from two largemouth bass, chopped in small pieces

Saute the onion and celery in margarine for about five minutes. Add parsley, salt and pepper to taste, fold in the chopped bass fillets, add bread crumbs to complete the stuffing. Fill the striper with stuffing and secure with tooth picks or skewers. Place the striper in a greased baking dish and brush with melted margarine. Bake at 375° for about 1½ hours or until the fish flakes easily with a fork.

Although originally named in sarcasm, anglers, campers, and nature lovers in general can enjoy the best of many worlds at Pike County's "Promised Land" —



An Angler's Promised Land

by Loring D. Wilson

As I eased the two-pound largemouth over the side and watched him shoot back toward shore in a flash of brown, I was almost sorry he had come so soon. The fallen tree with its heavy branch extending into the lake at a sharp angle made a beautiful "pocket" that was a baitcaster's dream. Anyone familiar with fishing just had to *know* that there would be a fish in that pocket. And, after a mere two feet of retrieve from the first cast of my surface plug, the bass had shot to the surface, snatched the offering, and bounced out to play.

More for the fun of making an accurate cast than from any hope of connecting again, I sailed the plug as far back into the elbow of the pocket as I could, and let it sit for a full minute, taking pleasure just in seeing the light green "frog" finish resting gently, almost touching the dark, brown-black, water-soaked wood. I reached

for my thermos of iced tea, and as my ample "spare tire" bumped the rod butt it sent a tremor down the taut line, and the plug shimmied — just a trifle — in the still water.

KWOOSH!

In an instant I had grabbed the rod and laid back, but it wasn't necessary. The chain pickerel had attacked the popper with such evil intent that he had personally taken care of any hook-setting that was required. A minute or so of splashy surface fighting, coupled with a few underwater bulldog-like head shakings, and the fish — about the same weight as the previous bass, but looking so much larger because of the difference in body shape — lay on its side in the clear water beside the boat. A dreft operation on the treble hook with the skill of a brain surgeon and a pair of long-nosed pliers, and I had him loose. Since he had not once been lifted from the water, he lay there for a moment, not aware that we were no longer connected. I prodded him gently with my finger (well back from the jaws!) and in a green and gold flash that shot water into my eyes, he disappeared.

I cast again . . . in fact, continued for another ten minutes, but there was no further action. On the other hand, two fish from the same small piece of structure is unusual enough in itself in most waters. But then, when an angler has truly found his or her "*Promised Land,*" the unusual has a disconcerting and very welcome habit of becoming the usual.

It really was the Promised Land, of course. 558 acres of water, laced liberally with cooperative fish may not seem like a Biblical Eden to nonfisherpeople, but to an angler, Promised Land State Park, which includes Promised Land Lake of 420 acres, Lower Lake of 138 acres, and 2,970 acres of woodland is a paradise on Earth. In addition to the land which makes up the immediate park, there are 8,039 acres of State Forest and State Forest Natural Areas surrounding the park that provide wandering in some of the most beautiful natural settings still available to Americans who love the history and beauty of the land.

There is an even greater peace and tranquility to fishing on either of the sister lakes than the beautiful surroundings. In this day and age when the typical "bass boat" looks like a lunar landing module and sounds like a saber-toothed tiger with stomach trouble, bass fishermen at Promised Land are surprisingly quiet. They have to be, since the only form of nonmanual propulsion permitted fishermen is the electric motor. (I know that you can sail there, but when you fish from a sailboat you get lumps on your head from the boom changing direction. Those booms wait until you're not looking, you know!)

There are more facilities for anglers and their families at Promised Land Lake itself. A nice beach of clean sand is available for nonfishing members, complete with a bath house and protection by lifeguards (plus, if you swim in Promised Land, you don't have to worry about Great White Sharks, which is a restful advantage.) And, within walking distance of the swimming facilities is a comfortable picnic area with both tables and fireplaces. Also, throughout the park there are adequate trash containers which make it hard to come up with any sort of excuse for not keeping the park as clean as you found it.

The Lower Lake doesn't offer quite as much for nonfishermen, although swimming and boating (with both mooring and launching areas) are available. Boat rentals and other concessions are not present at the Lower Lake, but tent and trailer camping sites are available at both lakes, and virtually between the two is Bear Wallow Cabin Colony, which has twelve rustic cabins that can be reserved by Pennsylvania families during the summer season for up to a week at a time.

While Promised Land Lake itself is a little over three times the size of Lower Lake, and provides excellent fishing, it is the smaller lake that draws the angler who wishes a quieter, more primitive area that can give a feeling of solitude as well as excellent sport. There are several fingerlike coves into which one may go and be totally unaware of the crush of the world around them — and some of the stretches of water and shoreline are as beautiful and unspoiled as anything the more affluent angler could locate with a wallet-breaking trip to Canada!



In many of Promised Land Lake's remote coves there's always piscatorial company of some sort which can be tempted to "play" for a while!



There are few more beautiful and seemingly primitive public fishing areas in the

Lower Lake is both easy to fish — and *isn't*. That isn't as much of a paradox as it seems. The structure in Lower Lake is some of the most beautiful to be found anywhere: acres of marsh, lily pads, and many stumps and fallen trees. These all provide marvelous shade and food-holding structure for gamefish, and when the angler considers that the lake holds bass (both largemouth and smallmouth), sunfish, yellow perch, walleye, catfish, and the two extremes of the battling pike clan, the chain pickerel and the muskellunge, it isn't hard to see that one or more of those species will be somewhere close to any good looking structure you locate.

So what isn't easy about the Lake? For one thing, it's hard on lures. Those "hawg snaggers" bristling with those large treble hooks are, I fear, destined to hang up in more Lower Lake "Stickfish" than the limits allow! Also, much of the water that holds the most commonly sought after bass and pickerel is quite shallow, and the bottom is



United States than some of the stretches of shoreline in "The Promised Land."

littered with structure, so sinking and deep diving plugs and spinners should be used more for the more deeply located walleye and musky.

Topwater lures are generally quite effective at just about any time of the year, although in the hottest periods of the year they will draw more strikes during the periods from an hour before sunrise to about two hours after, and from about two hours before sunset until dark.

The rest of the day belongs to the subsurface lures. Small, thin-minnow types and alphabet plugs are good when twitched so that they just dip below the surface and pop back up again, and spinnerbaits in the darker shades manage to bounce their way through most of the submerged structure without causing too many headaches.

However, the most effective lure I've found for all-round use in either Promised Land or Lower Lake is a weedless spoon. Carry it in sizes from ⅛ ounce to 1¼ ounces, in silver, gold,



Foraging gamefish find ample "hunting grounds" at Promised Land Lake.

red and white, black, and "frog" finish. It's good just by itself, but hang a piece of pork rind on the hook, either a strip or a skirt or a frog or pork eel, and you come up with a lure that can be reeled quickly across the surface to simulate a small snake or frog trying to escape; that can be cast and retrieved, or trolled, at midlevel and around the edges of weedbeds for pickerel, muskies, walleyes or schooled yellow perch. Or, allow it to sink and crawl slowly across the bottom for either of the bass, and possibly a surprising hit from a hard fighting "record bass" that turns out to be a catfish!

And, of course, anyone fishing the bottom will use the ever-popular plastic worm. The "Texas rig," with its slip sinker and buried hook point, is probably the most popular rig. However, in some cases algae, leaf mold, or grass will hide the worm as it crawls along the bottom. The answer to such situations is to use what is commonly called the "Carolina Rig." The slip sinker in this rig is moved anywhere from six inches to a foot up the line away from the worm, and pegged in place with a small piece of toothpick.

Obviously, a floating worm must be used with this rig to achieve the desired effect, but when it is, the sinker crawls along the bottom and the worm swims slowly along *above* the obstructions. Even though the line will not slide freely through the sinker, the chances are that the tiny extra drag would spook only the most hypersensitive bass. To lessen any chances of the fish feeling too much resistance, use the lightest sinker possible that will still ride the bottom.

And, for something else to try that can result in smashing strikes, not only from bass but from the pike cousins, try hanging an eight-inch (or larger) plastic worm on the hook of a weedless wobbling spoon. That sinuous, snaky motion seems to drive the fish wild. Of course, when fishing for the toothy species a pork eel will last much longer. A musky is at best a one worm per fish proposition (but isn't it worth it?), and a pickerel will sure prime that worm for utter and complete "wormicide" by the next pickerel. But often several bass or walleyes can be caught on the same worm and spoon, and if the head of the worm, where the hook penetrates, gets a bit ragged, simply pinch it off behind the tear and reattach it.

A word of good sportsmanship here: don't throw your "spent" plastic worms overboard. They are just as attractive to fish off the hook as they are on, and they're *indigestible.* A fish striking a plastic worm with no hook, sinker, or line attached will swallow it completely. And, since it won't break down in the stomach juices, it will impact in their digestive tract and after weeks, sometimes months of slow starvation, it will kill them. Most anglers know not to throw used fishing line or the flip-top tabs from beverage cans into the water because of the ecological hazards to both fish and waterfowl. But the plastic worm is yet another hazard that must now be recognized and remembered.

The same lures may be used in Promised Land Lake itself, of course,

and in the deeper or more open areas of both lakes, all standard lures may be used. Plugs are most effective in silver and chartreuse, and in the newer naturalized finishes available from several companies since these closely represent the actual appearance of small baitfish and other foods found in the lakes. Small spinners with brown or yellow squirrel tail dressing on the hooks are just about the hottest lure available for yellow perch and, in larger sizes, for walleyes. Small white bucktail jigs are also good for the walleyes.

For the purist, a lot of fun can be had around the structure with a fly rod. Foam rubber spiders are a good choice for the panfish, and either poppers or deer hair bugs for bass. Use a level leader of about six-pound-test. These fish aren't shy, and the structure is so thick that light tippets as are used for trout will be broken off all too often.

Because of the structure, these lakes are also hard to fish because of the difficulty in getting the hooked fish — especially the larger ones — out into open water. For this reason ultralight gear is asking for trouble on all but the smaller panfish. A relatively stiff rod is the best choice when worming or working the shore with weedless spoons or topwaters. In open water the tackle can be lighter, of course. Either spinning gear or baitcasting tackle can be used, although the baitcasting tackle will provide more accuracy for the casual angler—accuracy which is essential around the shoreline.

It is a paradox that the name Promised Land was actually an exercise in sarcasm. According to local legend, a group of Shakers were attracted to the area because of the promise of lots of fertile acreage and some sort of unspecified wealth that they were supposed to be able to obtain from the forests. The religious sect didn't wait around long enough to find out about the riches, however; when they settled the area they found that the "fertile acreage" turned out to be mostly rock, with small chance of supporting even a truck garden, much less a farm. So, with a smirk, they dubbed the area "the Promised Land" and left.

But the riches are there, just waiting for anyone to come along and take them. Why didn't the Shakers find them? Well, maybe they didn't have a fishing rod with them.



Weedless lures are almost a must for this type of shoreline habitat.



Picturesque, and an untapped source of quality warmwater stream fishing . . .

BUCKS COUNTY'S NESHAMINY CREEK

by Bob Jones

What does an enthusiastic trout fisherman do when he finds himself in a geographical situation where decent streams are few and far between? He can accept his ill fate and brood, while his tackle sets idle, or he can overcome his fishing fever by broadening his fishing horizons and checking out the other potential resources of his locality.

Lower Bucks County presents such a situation. Being a close neighbor of Philadelphia, it draws a multitude of city folks to its rural scenery, yet it lacks the rich trout waters that are blessed upon so many other Pennsylvania counties. Mill Creek, a marginally fair farm stream, has a short stretch of stocked waters, and is the closest trout creek to Buck's southern section, however, the stream is located almost in the center of the county. As far as the rest of Bucks is concerned, only two other marginal streams exist, both in the northern half of the county, and too far for easy access by the southern residents who represent the vast majority of the county's population.

Most of the local anglers have long since accepted their situation and confine their trout fishing episodes to several early season jaunts to the upper county streams, and afterwards, concentrate their attention to fishing Levittown's own Levittown Lake, a uniquely unnatural-looking landlocked body of water. The lake is actually an oversized pond crammed with Commission-stocked rainbows, and surrounded by suburbia and the nearby Levittown shopping center. It reminds me of the pay-to-fish trout ponds that are scattered throughout parts of the state. The lake is certainly better than nothing, but it surely can't simulate the action and environment available on a rushing tumbling trout stream.

After considering how unfortunate it is for lower Bucks County, with its dense population, to be deprived of any readily accessible quality trout streams, it is amazing that most fisherman have never discovered an incredible fishing resource within minutes of most of the lower county townships. I am referring to the magnificent Neshaminy Creek, whose length and expanse is something to behold, especially to those who haven't yet taken such natural assets for granted. Un-

like the small upper county streams, this creek is far from marginal. There are no trout now, but the fertility of bass and virtually every other freshwater species is staggering. Perhaps, I would not have discovered the bounty of these waters if not for its past identification as an approved trout creek. At a glance, many stretches do resemble prime trout water. Rapids, flats, undercut banks, and deep holes are all present and during the summer months the water is often exceptionally clear — enough to stir the emotions of any trout angler. Nevertheless, in 1974 the stocking was discontinued, evidently because of the steady gain of adverse factors, such as untolerable temperature rise over the summer, a condition which had gradually developed over the decades as shade trees and bushes were cleared for Bucks farmland and housing tracts. Excessive silt from the stripped land also contributed to the demise of trout conditions.

These factors didn't affect the stream's condition with regard to other freshwater species though. The smallmouth bass has firmly established itself and seems to be abundant to its maximum capability. The first specimen that I caught was with a flyrod, and at the time, it wasn't easy to discern its battle from that of a throbbing trout. My doubled-over rod attested to its unbelievable fighting strength. You quickly come to an appreciation of your catch when you realize that every one of these smallmouths was born and bred in their natural habitat, as has been the case for a multitude of generations. It's noteworthy to consider that the Neshaminy eventually empties into the final course of the Delaware, and it was her colonial-stocked waters which spawned the ancestors of the Neshaminy's abundant smallmouth population. I also assume that it was the Delaware which gave rise to the Neshaminy's sizeable carp colonies. These colonies lie in many of the long placid stretches, such as the one upstream of the Bridgetown Pike steel bridge, which is just north of Langhorne off Route 413. In late summer, you can stand high on the bank or some other vantage point and often see hundreds, perhaps thousands, of monster-sized carp rooting up the bottom. Even though I never personally got around to fishing for them, I suspect that carp-fishing devotees would be absolutely tickled with such a tub full of lunker fish.

Considering their massive size and bulk, they would have to be tackle busters regardless of any bungling in their fighting ability.

Since the carp were given a publicity plug, it's only appropriate to mention Neshaminy's endless schools of suckers, the anadromous eel, and the firm, husky channel catfish. Since an eel is not the usual expectation of the average fisherman, the first time he unknowingly reels in one of these slimy tubes of muscle and then comes face-to-face with the squirming creature, the shock will make it an unforgettable moment. The stream is also well inhabited with snappers, which will, likewise, surprise any unsuspecting bait fisherman who hooks and, upon attempting to reel in, engages in a tug-of-war with something behaving in a very unfishlike manner. Only when he finally pulls the hissing head from under the surface will he know what he has latched onto. As a matter of fact, the Neshaminy is full of shocks and surprises, as one fisherman that I encountered will affirm. He was still fishing for bass using shiners. Suddenly his bobber disappeared with no nonsense and his line began buzzing out. The man was uncontrollably excited and frantically reeling in his catch. He was soon facing a long toothed snout belonging to a near legal-sized musky. His shock was genuine, since he hadn't ever known there was any such animal in the creek. When I told him that it still had several inches to go until legal, he was just as surprised. Later, I was told that the PFC had stocked some trial muskies far downstream, and evidently, they were doing fairly well. Foodwise, the musky should not have any problems in the Neshaminy because of the incredible number of shiner minnows, which grow to a meaty size. The minnows are so plentiful that its hard to believe that you would have any chance of catching

Fishes of many species savor the richly oxygenated waters at the base of Neshaminy Falls at Hulmeville.





Anglers utilize slow-moving stretch upstream from Bridgetown Pike bridge.

anything with a minnow on the hook. Nevertheless, the fish apparently have an insatiable appetite for those shiners, since you seldom have to wait very long before enticing something to your baited hook.

The bass just love the minnows and equally relish the crayfish, both hard and soft-shelled, which become numerous as the season progresses. The smallmouth can be found in the rough waters and also within the quiet flats and pools, where truly trophy-sized bass lurk beneath during the daylight hours. When late summer and fall evenings arrive though, these lunker bass will recklessly crash through the surface for floating morsals, and then slap down on the water so loudly that unprepared streamside wanderers often get a heart-skipping scare as they are caught off guard. When the bass begin their acrobatics, it's a natural time for flyrod action. Yet, I never once saw anyone on the creek take advantage of such opportunity.

One hotspot, which is as good as any for this type of bass action, is located along the border of Playwicki Park, a county-owned picnic and recreational area off Route 213, a few miles west of Langhorne. An exceptionally good stretch of bass water runs along the northern end of the park. It is hidden by trees from the main areas of the park, and consequently, is relatively unknown and underfished. In addition, Middle Creek, a feeder stream, enters a deep pool formed by a 90° creek bend near the front of the park. The pool is full of all types of fish and is a favorite hole of the rod-toting picnickers. Incidentally, the feeder stream retained a small population of brown trout after the Neshaminy became unapproved trout water. The trout were only about seven inches long and apparently found refuge there from the warm and polluted waters of the mainstream. I still like to believe that those brownies are thriving, since I had many memorable times fishing for them during that first summer that I discovered and began exploring the Neshaminy.

Another scenic area, that is readily fishable, is located several miles upstream in Tyler State Park, just off Route 413 and west of Newtown. The park is much larger than Playwicki, having its own canoe and bicycle rental concession. Sightseers can canoe above a small dam, or they can check out, by way of nature and bicycle trails, the streamside landscape and numerous historic farmhouses that are maintained cooperatively by the state. The waters in the vicinity of the park are practically unfished. Tyler and Playwicki Parks afford the ideal setup for disguising a fishing trip within the trimmings of a family picnic, a tactic especially prescribed for fishermen feeling the scourge of a not-so-tolerating fishing widow.

Since two parks have been mentioned, it's appropriate to also mention Neshaminy State Park with its marina and swimming pools in addition to standard park facilities. The park is situated near the confluence of the Neshaminy and the Delaware, which can be reached off State Road by the town of Craydon. The creek here, in its final stretch, resembles a sluggish inland waterway, quite different in character than the upper fast waters. The state-owned marina is patronized by Delaware River day cruisers, as well as those adventurous boaters heading for far-off bay points and the Atlantic.

A mentionable scenic site, the Neshaminy Falls, lies only a few miles upstream of the confluence, near the town of Hulmeville. Large bass, carp, and even pike frequent the richly oxygenated waters at the base of the falls. Above the falls rests a wide, long, and lazy course of water favorable to float fishing.

The various locations described are certainly not an exclusive listing of potent fishing spots. The creek is fishable, as well as pastorally scenic, almost everywhere; yet, as mentioned earlier, it is unexplainably ignored by the majority of local anglers, despite the acute deficiency of other decent fishing streams. As for myself, I was lucky to have discovered rather than overlook the beauty of the Neshaminy with all its offerings. It began as a convenient place to spend a pleasant day astream and practice my fly fishing stream techniques. The creek eventually grew on me, and I began trying other methods of fishing the stream, particularly, still fishing the large pools and flats. Previously, I couldn't see any possible excitement in fishing with bait, patiently waiting around for a fish to come along. That was until I saw my minnow frantically swimming near the surface, just before being gulped up and taken below to be swallowed. After the pulse-raising scene, I was religiously back, often giving up a nice day of active trout fishing in order to quietly sit on the bank and watch a bobber. Of course, with the bountifulness of the Neshaminy, I never was required to sit and wait too long before that bobber was yanked under with the zesty determination of a fat bass.



The author found that ". . . there were nice uncrowded reaches and many pools seemed to beg for an angler or two."

HOW TO FIND THE BUSHKILL —

The Bushkill is located in northeastern Northampton County. Bushkill Drive (L. R. 48021) parallels the stream from Easton to Tatamy. There are numerous parking spots all along the road and access is easy.

Route 191 crosses the creek just on the outskirts of Stockertown. Route 33 parallels the Bushkill from Stockertown to Belfast. After exiting Route 33 at Belfast take L. R. 48040 *west* into Jacobsburg State Park and the upper Bushkill Creek. From Stockertown northward, Route 191 follows the Little Bushkill which is worth an early season visit.

The FISH-FOR-FUN area is just south of Tatamy and can be reached along Bushkill Drive. It is well marked.

The rolling countryside of Northampton County, dotted with farms and pleasant towns offers diversions for the nonfishermen in the family. There is plenty of "antiquing" to be found in the area, there are ample opportunities for bird and wildlife watching (and later in the season, for hunting), and many scenes are waiting to be depicted in charcoal or watercolor, or captured on film.

fishing the Bushkill . . .

"Little River"

by A. G. Eastby

The day was unpleasantly warm, but inventorying a trout stream is thirsty work even when the weather is cool and breezy. So, too, is photographing an electrofishing run. When the Fish Commission team packed up their gear after the final trout had been stunned, measured, fin clipped, and returned to the water, and I snapped the lens covers onto my cameras, we were all eager to get back to the car where my wife had cans of soda pop cold and frosty from the cooler chest waiting for us.

As we perched on truck hood and open station wagon gate, the conversation turned, as expected, to trout and trout streams. Area Fisheries Manager Craig Billingsley and Fisheries Technician Dan Bourke were, as always, filled with information and anecdotes they were anxious to share. But it was Terry Hannold, Waterways Patrolman for Northampton County, who answered my wife Clara's pointed question about where she was likely to find a good spot close by for a little fishing.

Hannold advised us to try the Bushkill Creek. He told us that "FISH-

A BUSHKILL FLYBOX

On warm summer evenings one of the best flies that an angler can choose — on the Bushkill or any other stream — is a pale, light tan sedge that matches a common hatch of *Helicopsyche* caddis flies. This is the pattern I like for this fly:

TAN SEDGE

HOOK: Sizes eighteen through twenty-two.
THREAD: Buff.
Body: Light tan polypropylene dubbing.
WINGS: Cream ginger hackle tips tied "delta wing" style.
HACKLE: Cream ginger and ginger variant mixed.

My own favorite Bushkill fly is one useful from May through September, whenever small, pale mayfly spinners (*Epeorus, Stenonema, Stenacron,* and *Ephemerella* species) are returning to the river.

DUN/YELLOW SPINNER

HOOK: Sizes fourteen through twenty-two.
THREAD: Yellow.
TAIL: Pale dun hackle fibers.
BODY: Pale yellowish-tan polypropylene dubbing (one part yellow, one part cream, one part tan).
WINGS: Light grey (dun) polypropylene "wing material."

On summer days when most trout fishermen are debating whether to turn on the air conditioner or find someplace for a leisurely swim, a handful of anglers will try their hands at taking trout on terrestrial imitations. At these times one of the best choices to knot onto the end of a leader is a variation of the Letort Cricket I call "Clara's Cricket."

CLARA'S CRICKET

HOOK: Sizes eight through fourteen.
BODY: Green-brown polypropylene dubbing (one part medium brown, one part dark green).
UNDERWING: Pale cinnamon turkey quill segment.
OVERWING & HEAD: Deer body hair dyed dark green.

A well-rounded selection of flies for the Bushkill would also include dry flies such as the Hendrickson in sizes twelve through sixteen (preferably tied in the "thorax style"), the Pale Evening Dun (sizes sixteen through twenty: again tied "thorax style"), and the Light Cahill in sizes twelve through eighteen. The nymphs to rely on include small caddis larvae imitations in cream and olive and stone fly patterns. A full range of terrestrials ('hoppers, beetles, ants) are useful. These flies, supplemented by the patterns described above should enable the angler to face even the cagiest Bushkill brown with confidence.



A lone Bushkill angler appears to have most of the "Little River" to himself — a common sight this time of year.

FOR-FUN" regulations had recently been instituted on a section of the stream and that it might be worth a trip. After we said our "So Longs" to the Fish Commission workers, Clara and I drove to the creek following Hannold's explicit directions.

When we pulled off the road into a dusty little parking lot, we were both bubbling with excitement. Seldom had we seen a stream that looked so inviting. I headed downstream, threading my way through a thick, almost impenetrable tangle of bankside brush to a long, well-shaded, sweeping glide. After knotting a small beetle imitation to my 6X tippet, I laid out a cast curling upstream close to a rock ledge. The fly no sooner landed than it disappeared in a tiny dimple. I tightened up on the line and felt a slow, powerful surge begin. The fish moved, not frantically or anxiously, but slowly, steadily, literally majestically, across the stream and into a deadfall. Every trick I tried was to no avail. I pulled on the line . . . then strummed on it. I tapped the butt of the rod, I eased the tension and gave slack. It was useless. The fish shook its monumental head and the fly came loose. Although it is only a guess, that first Bushkill brown must have been two feet long (well, *at least* twenty inches).

That was our introduction to Northampton County's Bushkill Creek. It could not have been more auspicious.

Since that summer day we've been back to the "Little River" (the early Dutch and German settlers called many of the streams they settled along "Little River" or "Bushkill"). Each

visit has deepened our regard for this stream. Its broad, sweeping pools, and swift, swirling riffles have an attraction matched by few other streams. Part of the mystique of the Bushkill is the knowledge that *the* trout is still there, only now it must be even larger. But of course there are plenty of other trout as well.

The Bushkill is heavily stocked with browns and rainbows in both preseason and inseason plantings. There is also more than a mile of "FISH-FOR-FUN" water (where all trout except one per day twenty inches in length or better must be returned to the stream). Many of the stocked trout "carry over," growing larger and warier — especially, but not exclusively, in the "FISH-FOR-FUN" stretch.

There is some natural reproduction, particularly by browns, and this in all likelihood will increase as more and more anglers limit their kill. Late one afternoon, Waterways Patrolman Hannold showed us a series of pools where trout the size dreams are made of cruised leisurely among the rocks dining on insects or minnows that chanced into their path. From one hundred yards away we could count the spots on their sides. Later that same evening we fished several pools where at least forty to fifty trout were rising steadily. Just remembering those sights makes my palm itch for the feel of a fly rod.

What was surprising about both those scenes was that they took place just a half dozen miles from downtown Easton on a stream that has been abused and punished for generations. The Bushkill originates on the slopes of Blue Mountain near Wind Gap on the southern border of the Poconos and it flows south and then southeast until it joins the Delaware in Easton.

Its lower reaches (from Stockertown downstream) have been dammed, polluted, channelized, and even, in at least one area, *moved* by road builders. Yet it has survived and the fishing seems to be getting better year after year. Part of the credit belongs to local sportsmen's groups such as the Trout Unlimited Chapters based in Easton and Bethlehem, part to tougher laws and better law enforcement. Anglers also owe a debt to Waterways Patrolman Terry Hannold who guards this creek with diligent vigilance.

The other surprising thing about this stream is that there are only a relative handful of anglers who take full advantage of the angling opportunities offered by Northampton County's "little river." On an April weekend last year only three other fly rodders, my wife and I fished the "FISH-FOR-FUN" area and on the "open waters" there were nice, uncrowded reaches and many pools seemed to beg for an angler or two.

The trout fishers who do work this stream are, by and large, as good a group as any I have run across. Sophisticated, knowledgeable, well-equipped, the Bushkill regulars are prepared to catch fish. In short order they see to it that the trout learn how to elude capture. It is a lesson the fish don't quickly forget.

In April and May there can be days of really fast fishing, but the Bushkill doesn't really come into its own until later in the season. By Memorial Day the rush and crush of early season angling is over and the stream is shaping up nicely. The browns and 'bows — which are notoriously difficult to take at the best of times — will now be behaving as they should, scorning the wrong flies, ignoring poorly presented baits, and scooting away from the clumsy, heavy footed wader. But for the angler skillful enough, for the trout fisher who likes a challenge, the fish are there, waiting.

On the Bushkill trout fishers have an opportunity rare these days: they can pick the season and the style of fishing they like best. Some anglers will claim that there is nothing to compare with the morning hatches of "trico" or "caenis" mayflies when the "little river" seethes with feeding trout. Others will maintain that warm Indian summer afternoons when golden sided browns roll and cavort, snapping up beetles and ants blown into the flow are the Bushkill's best moments. Brisk April mornings, the hours when the trout slice through the flow to intercept a bucktail in its course are cherished by many. But I'd rather be on the stream as evening settles over the mill dam pools and red winged blackbirds swoop low over the stream.

On calm evenings may and caddis flies emerge from the pools and riffles and dance toward the bankside trees. The trout, veterans now, pounce on emerging duns or sedges. With the right fly — one that matches the hatch — and if care and skill are used in approach and presentation, the angler can catch and release trout until darkness drives him from the stream. It is not easy . . . the Bushkill is not a stream for careless, casual fishing. But it is trout fishing at its best. The fish are there. They can be caught. It's up to the fisherman to do it.

BAITING THE BUSHKILL

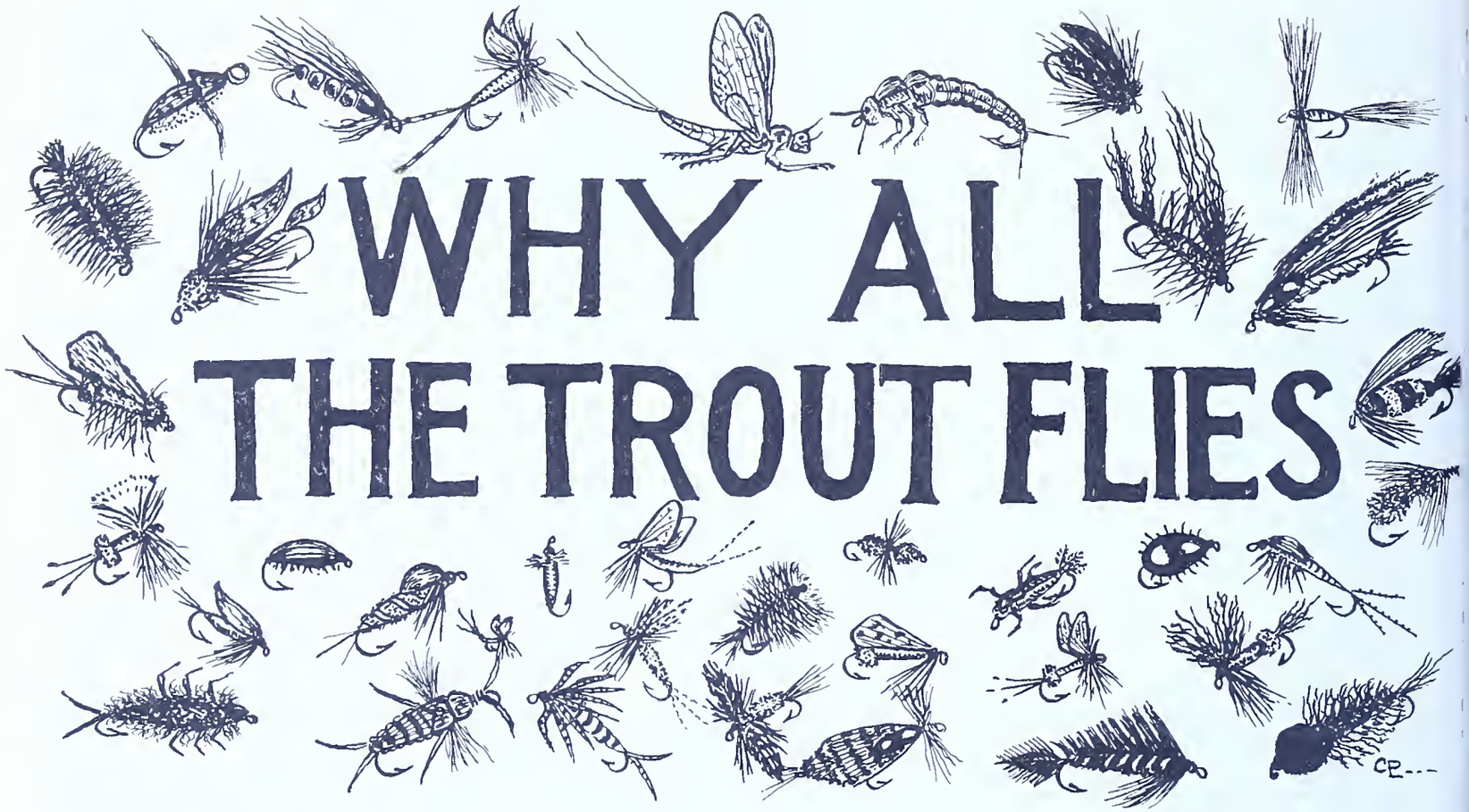
During any fishing season an angler is likely to see every conceivable kind of bait used to catch (or try to catch) trout. Corn, cheese, strips of liver, doughballs, as well as the more conventional salmon eggs, worms, and minnows — all are used by fishermen.

On the Bushkill most of the trout fishers — other than the fly rodders — seem to favor worms. Certainly the best catches likely to be seen in the early season are made with the aid of a can of freshly dug worms. The fishermen I have spoken with like small, lively earthworms, preferably about two inches long. Tiny red worms, big night crawlers, and worms from compost heaps are simply not as effective as those dug from moist, firm soil. This, of course, is true no matter where you fish.

As is usually the case, the more successful bait fishermen use long rods (usually fly rods), short casts, and a natural, bottom-bouncing drift. When the water is high and off-color or in the deeper pools, three or four split shot crimped on the line or leader are needed so the worm rolls right along the bottom. As a rule, however, less weight is called for. The key is to get the bait down and keep it there. Bushkill trout like their worms as close to the bottom as possible.

Probably the most productive bait fishing sites are the long, broad flats and the deep plunge pools created by the mill dams that check the flow of the Bushkill. Local fishermen seem to like the pools upstream from Thirteenth Street in Easton, the water on either side of the bridge at Palmer Park, and the stretch bisected by the bridge in Tatamy — all areas with old mill dams.

After the middle of May, bait fishermen don't do as well as they would like. The angler who wants to take trout from June through the end of the season would be well-advised to give fly fishing a try, especially on the Bushkill.



WHY ALL THE TROUT FLIES

by Clayton L. Peters

illustrated by the author

Down through the ages men have been wracking their collective brains trying to devise new patterns of flies in order to entice fish into striking.

Some far out flies certainly look like nothing a fish has ever seen in their own habitat. Others are devised as realistic imitations of aquatic life as well as terrestial insects that may perchance blunder onto the water film. Much of this confusion is carried to extremes by magazines, publications and innovators.

Mary Orvis Marberry listed over 600 patterns. A. J. McLanes's dictionary lists thousands of patterns, and more recently, Terry Hellekson published over a thousand patterns, screened from all over the continent. All these patterns of flies make interesting reading and the illustrations compiled into book form contribute to make a splendid source of amusement during the bleak winter months when armchair fishing is in order. If I were to attempt to tie one of each of the flies in the books in my library I would tie into the next generation!

Many of the patterns are of the old school of tiers and a lot of them have English ancestry. Most of the English patterns can be discarded as being incompatible for American use because their counterparts simply don't exist here.

I feel safe in saying that if the old school of fly tiers had had access to the more modern material available today their patterns would bear a different aura.

Some authors thoughtfully list flies as "Eastern" or "Western" patterns, but they add innovative patterns of their own choosing which compounds the woes of the fledgling fly tier who wishes to dress flies to imitate the hatches as the season progresses.

Actually, we here in Pennsylvania have only about two dozen mayflies caddis and stone flies to work with over the entire season. Add to that a few minnow imitations, such as the black nosed dace, and the terrestials that interest trout in your locality, and you are well-equipped for any occasion that might present itself.

I wouldn't try to infer that at some time or another any one of the thousands of patterns will not catch some fish; but, when a given hatch of flies rises from the water trout can be very particular. I know of fellows who fish one pattern of fly consistently over the entire season. One of my fishing pals attached an Adams fly to his leader to start each evening's fishing. He didn't know that those bi-color legs imitated several of the *Stenonema* family of flies. Another acquaintance swore by a green wet fly, not knowing that more green caddis inhabit our eastern streams than any other color.

I like to believe that fishing the pupa or nymph beneath the surface and the dry fly to the hatch is the only way to go.

I also believe that when no hatches are present trout may be taken consistently on an attractor fly, and that an attractor fly should have white wings, be they hair or quill. These deductions

are the results of many years of experiments.

"Decoration Day," '78 the Spring Mills Cooperative Club stocked beautiful brook trout in Poe Creek, Centre County. There being no flies over the water, I tied some plain coachman flies with white hair wings to be fished beneath the surface. The boys who used them all had good results. It was simply a matter of attraction when other food was unavailable in quantities. A few attractors may be advisable to have in the fly box for specific occasions, but it is not necessary to have a caddy to carry a preponderance of flies you will never use.

I recently met a fellow along Penn's Creek who carried a veritable store house of nondescript, wet, dry, nymph and streamer patterns that he boasted he had tied himself.

The March brown fly came on the water and he didn't have an imitation to match it!

I firmly believe that if we carry the nymph, dun and spinner of our eastern flies we are able to take care of most situations, except, of course, during high roily water or late season when terrestials happen to find the water. In a few cases some of the dun and spinner patterns can be eliminated. The trout do not have access to the subimago or the imagos of some flies and it is useless to carry an imitation. I have yet to take a trout on the subimago imitation of *Ephoron leukon*, the little white fly that emerges from the Yellow Breeches in August, although they do relish the imago or spinners and feed on them heavily.

One reason for some anglers' frustration is due to a dulled sense of observation when a given fly is on the water. The trout are feeding heavily, but they do not have any well-tied imitations. This is often the case when two or more hatches occur simultaneously. The angler looks at the prominent hatch of large flies, while the trout are satisfied to partake of another species, often smaller, and the angler fails to detect the error. I had this happen when to all appearances the trout were rising to the big green drake when actually they were feeding on the pale evening spinner, a much smaller fly, with its prominent yellow egg sac.

I saved an embarrassing situation for one of our state's foremost anglers one evening on Penn's Creek. He had journeyed over a hundred miles to meet the green drake hatch, armed only with his well-tied imitations of the big *gutulatta* fly. The trout did not show even a remote interest in the big fly but fed ravenously on a smaller mayfly. Luckily, I had enough artificials of the pattern to save the evening's fishing for both of us. We all learned a lesson from what otherwise would have been a very frustrating evening.

Back to basic patterns, we are confronted with the rhythm of nature and we find that under normal conditions each species of fly emerges within a few days of a basic schedule each year. Sometimes hatches do overlap and the trout will prefer only one of the dual emergence. By keeping a chart one can be on the alert for each of the flies at the time of their appearance. Another way to determine when a certain fly may emerge is to screen nymphs from the stream's floor and examine them for development. If the subsurface forms are not fully developed, the actual rise of the sub-imago (dun) may be retarded due to weather and stream conditions. If all is well and the nymphal stage is developed fully, the flies may appear on schedule. To illustrate this we took samples of the green drake nymph on May 27 of 1978. They were far from fully developed, due to the late spring and cold water. We could anticipate that the "hatch," which is normally due about May 30, would be about two weeks late. So, we cannot adhere too closely to a strict schedule, but must cope with the adversities of nature as well.

The following is a relatively close schedule of the emergence of the flies that should interest fishermen here in Central Pennsylvania. If you are fishing streams in the northern part of the state add a day or two for more accuracy.

To this list of Mayflies add the Grannom and several smaller caddis flies along with *Perla Capitata* stone fly and several of its smaller cousins and you have a good assortment for the entire season on most Pennsylvania streams. It should be added that the Grannom emerges as early as April 18. On some streams it doesn't seem to create much of a sensation. On Penn's Creek it constitutes a major hatch and is eagerly waited for by fishermen on that stream.

The large yellow-bellied stone fly usually does not show in numbers before June 10, but when they do the trout seek them avidly. Very often this big fly emerges during the night, but I have seen evening hatches when the trout went wild. When *capitata* lands on the water it is with a pronounced splat and it is almost impossible to spook trout at those times. Many wet fly fishermen are becoming aware of the potential of the stone fly nymph. Some fellows fish this nymph day in and day out all season — unless there is a definite hatch on — and they take their quota of trout.

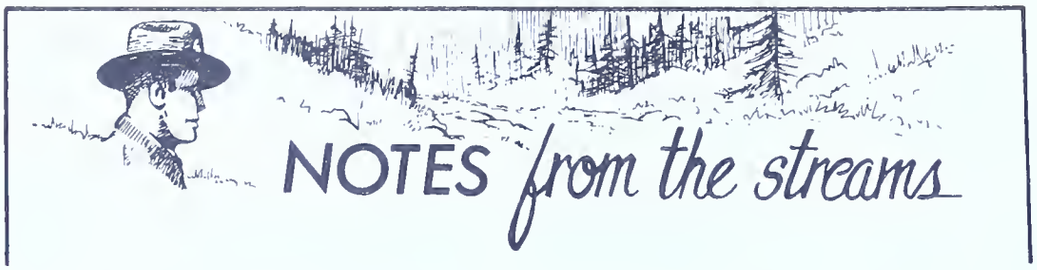
If you are an innovator and like to play with devising patterns of your own to bolster your ego, well and good. You may wish to try your hand at creating crane flies or blue damsels, which the trout do feed on at times when regular hatches are long coming.

Late in the season, when the hatches of the regular stream-bred mayflies is about over, a new picture unfolds. Ants, beetles, crickets, June bugs, and other terrestials find their way to the water and the trout relish them. The fly fishing specialists turn to the Tricorythodes and Caenis to calm their piscatorial nerves. This is fishing at its finest and unless you are prepared to have your offering repeatedly spurned by foraging fish, stick with the larger

(continued on page 29.)

Name	Imitation	Date
Iron fraudator	Quill Gordon	April 15
Ephemerella suboaria	Hendrickson Red Quill	April 18
Stenonema vicarium	March Brown	May 1
Stenonema fuscum	Gray Fox	May 1
Isonychia Bicolor	Leadwing	May 28
Stenonema canadensis	Light Cahill	May 28
Ephemerella dorthea	Pale Evening Dun	May 20
Ephemera Guttulata	Green Drake	June 1
Ephemerella Attenuata	Blue Wing Olive	June 15
Potamanthus Distinctus	Golden Spinner	June 20

Note: This emergence schedule is for normal conditions. Last year, hatches were at least two weeks late and the hatches were intermixed.



PROTECTIVE?

Recently, the following article appeared in the "Around Town and Country" section of the *Butler Eagle* newspaper:

"A Butler area man suspects that snakes can be as protective of their young as birds frequently are, after a recent incident at his summer home in Carbon Center. The man found 18 eggs under a rock on his property, and picked them up. On breaking one open he found a baby reptile curled up inside. Later, he went back to the same spot, and as he bent over to pick up the rock again, he felt something strike him in the back. When he looked up, he found that he had been hit by a four-foot black snake that had dropped out of a small tree. He'll be hard to convince that the mother snake had not observed him taking her eggs and was striking back at him."

Eugene Scobel
Waterways Patrolman
Butler County

NEWS MEDIA APPRECIATED

We, the Fish Commission, are dependent upon the various news media for the dissemination of news releases important to fishermen, boaters and others interested in the out-of-doors. Here in Elk County, the *St. Marys Press, Ridgway Record, Johnsonburg Press, Bennetts Valley News* and WKBI do a great job for the Pennsylvania Fish Commission and we say thanks to all of them.

Bernie Amborse
Waterways Patrolman
Elk District

PROTECTION —

How to bury your favorite trout stream? Why, just allow surface mining along it the way they have been operating till just recently. Provisions of the Clean Streams Law which prohibit unnecessary siltation instituted in '74 were never imposed upon the surface mining industry. Congress' passing of PL 95-87 (Federal Surface Mine Reclamation Act) has set the stage for implementation of these important controls to protect our waterways from being buried in silt. Coupled with the Act's reclamation provisions for restoring orphaned strip lands, this should not only protect our streams today but actually reclaim additional miles of streams tomorrow, and still allow for the removal of coal without the environmental problems of yesteryear.

H. Porter Duvall
Waterways Patrolman
Jefferson County

UNDAUNTED!

Ice fishing can sometimes be a trying sport, considering the freezing weather, two-foot-thick ice to dig through, and sometimes uncooperative fish to contend with. Two cheerful anglers I met recently at Leaser Lake, though, could take in stride any misfortunes that might occur. They were still in a good mood after having the following problems.

After purchasing a brand new screw-type ice auger they decided to drill a test hole near shore. The test hole went right through the ice in jig time, but bored right into the gravel bottom of the lake! This dulled the blades enough so that they could not cut another hole with the auger. Driving all the way back to Allentown to the store where the auger was purchased, they found it closed. They drove to another store and bought another auger. This new auger was a shovel-type blade design and was razor sharp. Back to Leaser Lake they went to try again. One of them grabbed the new auger and started a hole. He was standing a little too close to the blade and it sliced a nice chunk out of his leather boot. On wet, cold ice, this is not good! Despite these minor problems these gentlemen were in good spirits and determined to make ice fishing fun — whether it was or not!

Fred Mussel
Waterways Patrolman
Lehigh County

"WATER-SOMETHING"?

The first telephone call I received this morning really made my day. A female voice on the other end said, "Are you the "Water-*something*?"

My answer was, "Yes, I am the waterways patrolman."

The female's reply was, "How soon can you come over and turn my water on?"

After a short pause, I began to laugh and replied, "Lady, I've been asked a lot of questions, and been requested to do a lot of different things on my job, but this is the first time anyone mixed me up with the water company!"

The lady then informed me that she had just moved to Ford City, didn't have a phone book, and didn't know whom to call, and the telephone operator gave her my number! Needless to say, I took the time to look in the yellow pages of the directory and find the proper number for her to contact!

Jim Smith
Waterways Patrolman
Armstrong County

GREAT WORK!

At two very large fires at Harveys Lake last winter ice fishing equipment was put to good use to assist in bringing these fires under control. Power ice augers (the type used by ice fishermen to drill through the ice) were used to drill through the almost 2-foot ice cover so that the fire engine suction hoses could be placed into the water, which was relayed five hundred yards to the burning buildings.

Claude M. Neifert
Waterways Patrolman
N/Luzerne County

THAT'S WHAT!

During the Pittsburgh Boat Show held at the Civic Arena in Pittsburgh this year, a man picked up one of the publications we had for distribution and, to nobody in particular, made the comment, "**You make a lot of payments.**"

(The name of the publication? "*I Just Bought a Boat, Now What Do I Do?*")

Gerald T. Crayton
Waterways Patrolman
N/Allegheny County

UNSUNG....

Often in this column we waterways partolmen sing the praises of our dedicated crews of deputies. However, it appears to me that one group that is constantly helping out the waterways patrolmen, the Fish Commission, and the fishing and boating public never gets as much as an honorable mention . . . our wives. Who else would volunteer to fillet my day's catch so that I would have time to attend a meeting of sportsmen?

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

Why all the flies?

(continued from page 27.)

terrestials for more excitement. Crickets have accounted for some of the largest trout taken from Yellow Breeches Creek late in the season.

Another mayfly worthy of mention, although not indigenous to most streams is *Ephoron leukon*, the white mayfly that inhabits some limestone streams and ascends from the water in late August and peeks about Labor Day. Since the regular sequence of mayfly hatches has ended, this event is looked forward to by knowing fishermen. As with all of the flies, there are some traits of this little creature that we are beginning to piece together. We have found that the trout rarely take the sub-imago fly but prefer to wait until the imago spinners come back on the water to deposit their golden cargo of eggs. I have had as many as twenty trout splashing relentlessly all around me and refusing my sub-imago pattern, but as soon as I offered them a replica of the spinner they were cooperative.

We still have a lot to learn of the vagaries in the life-style of the trout, but when we piece the puzzle together we can place the book of 1000 patterns back on the shelf and offer the trout one of the few patterns which they depend on for sustenance.

In enumerating the flies fish feed on most I do not wish to try to infer that they should be tied exactly to specifications handed down through the pages of angling literature. Flies vary in color, to some degree, from region to region, and stream to stream. They also vary in size. The most rewarding method is to study the insects in the streams you fish regularly and duplicate them to fit local conditions.

Modern materials are produced constantly and find their way to the fly tier's bench. In some instances these new materials make the time-honored applications antique. I'm sure that if Gordon, Hewitt, or Jenning had had access to our modern materials you would have different dressings listed for their flies.

Polypropylene alone has made a closer body imitation possible. Subtle shades of this material can be dyed to the exact color of the natural insect, and it is durable.

So, to achieve the ultimate in success, tie or have your flies tied of the best of modern materials to match the flies of your local streams; stick with the few local genera of flies and "***match the hatch.***"



The author's discarded flies from yesteryear. Any "killer" patterns? Maybe.

THE WINNER!

One opening day of trout season some time ago, I was patrolling Kinzua Creek when I saw a boy of about eight years of age hook a nice trout. While the little fellow struggled to land his catch several adult anglers watched and offered no form of help or advice. Soon the fish got off the hook and the boy jumped right in after it — up to his neck in the cold water! Of course, the trout escaped his grasp. With tears running down his cheeks, the lad quickly put another worm on the hook and made a cast. Shortly, the boy had another nice trout hooked. After a brief fight the fish was flipped upon the bank and the young angler jumped on it this time. Snatching up his prize, the proud fisherman trotted down the road with a smile from ear to ear!

Floyd South
Deputy Waterways Patrolman
McKean County



John Lucarelli, of Ellwood City, shows his 27 7/8-inch, 9-pound brown trout.

How to stretch your boating fun on a tight fuel supply?

It can be done! There are many ways to make your unit more fuel efficient. Then, too, there's a great deal of enjoyment available while waterborne which does not necessarily demand "Full Speed Ahead"! Drifting . . . lying at anchor . . . all provide extra economical hours afloat.



Ashore & Afloat

by Gene Winters

I'm sure most magazine *readers* know that magazine *writers* work considerably in advance of release date. This author, for example, works with about a three-month time difference between time of writing a column and its publication release date. All of which means that, what you are now reading, flowed from the pen — in first draft — way back in early March. It's probably of little concern to you, however, as long as your favorite magazine appears regularly, on schedule, each and every month. But, for a moment, picture what it is like to write an article in March about boating in June. Under ideal conditions, it requires at least a minimum of anticipation. But everything is much more complicated than it used to be, and magazine writing is no exception.

Writing in March, in our increasingly less affluent society, who's to say, for a big example, how much fuel will even be available for boating in June? Any? Some? Unlimited? And, assuming at least some is available, who would attempt, at today's prices and rate of climb, to even guess the price per gallon three months into the future?

I feel confident, as I wait out the end of the March winds, that at least some gas will be available. I feel confident that avid boaters, like we are, will cough up sufficient money to buy some gas, even at the cost of further trimming of the food budget. So, how can we best use the available fuel and still manage the family budget? First, we could all sit in our boats at the dock. But for most boaters, particularly those with small boats not equipped with all the comforts of home, such action (or inaction) would be at least frustrating, perhaps devastating to our mental health. So, the solution is to use and maintain our boats in a manner that ensures the greatest efficiency and economy. I'm sure we're all now long-accustomed to keeping our autos tuned up for maximum economy. Are we doing the same for our boats?

Why, you may ask, is an article like this published in June instead of the

beginning of the boating season? First, way back in March, the picture was pretty well driven home. Many stations were running low or out of regular grade gas, there were spot shortages of no-lead, and prices were soaring. Everything we read and heard concerned gasoline, or so it seemed. And all the boating magazines were filled with dire predictions and expert advise. But now, here in June, what is the situation and have we gotten sloppy and careless in our fuel management programs on the water? Secondly, assuming as you read this we, as boaters, still can at least find some gas, I think we must realize the worst energy crunch may still be around the corner.

There's little question we are just moving into the peak summer driving and boating period in June, July, and August. Beginning the first day of the week of the Fourth of July, it looks like the whole country's on vacation at the same time. That translates into more demand and if not less supply, even higher prices.

No matter what has transpired between my writing this column in March and your reading it in June, the fact remains that powerboat fuel, like all fuels, will likely never again in our lifetime be as plentiful and inexpensive as it once was. Even though, according to the most recent figures I've seen, powerboats use less than .7 percent of the country's fuel, almost every other recreational sport and, indeed, even many industries, can quote equally impressive low individual consumption demands. But put it together all at once, and you've got a whole lot of people trying to use a whole lot of fuel at one time.

So, once again, here in peak-of-season form, are some capsule comments of at least a few steps we should all be taking or at least considering. You probably won't find anything you haven't heard before, but if reading the tips corrects some sloppy habits we may have slipped back into, some purpose is served. Not all tips mentioned will apply to all boats, but few of us would find it hard not to find one or more that we could apply that might help ease our personal energy crunch.

Keep the bottom clean. It's absolutely essential no matter whether your boat is made of wood, fiberglass, or metal. A clean, smooth bottom will give a lot more miles for the same power and fuel than one caked with slime and other crud. As much as a 15 percent effect on fuel use — good or bad — can be traced directly to the condition of the hull bottom.

Like a car, it almost goes without saying that every boatman will benefit from engine tune-ups. In particular, "tired" sparkplugs are the biggest culprit along with neglected ignition timing.

Lubrication and maintenance of the powertrain, gear box and steering (rudder, too, if applicable) is often overlooked but very important. For example, a rudder that is bent, or even dented, will waste gas. A lower drive unit, an engine that overheats, cables that bind and require throttle power to replace manpower all contribute to inefficiency.

Make sure you've got the *right* prop for *your* boating needs. Remember, the stock prop that comes with the boat is a compromise. The factory has no idea how you will use the boat . . . skiing, cruising, in creeks, river, ponds, lakes, bays, oceans, etc. If you've still got the stock prop, chances are very good you don't have the *best* prop. In addition to possible unnecessary fuel consumption, the wrong prop for the job may actually be causing unnecessary wear and tear on your powerplant. Even on small boats, proper prop selection should not be overlooked.

Don't run the engine unnecessarily at idle. You get *no* miles per gallon at idle. Small boat owners are not as guilty of this sin as are the big boys. There are few things that disturb me more than seeing someone running the engine at the dock to recharge batteries when, ten feet behind their boat, the marina has provided 110-volt dockside power. That, and a twenty dollar battery charger, can save an important amount of fuel.

Use a small outboard when you can, especially for trolling. An electric motor, where practical, has turned out to be a great way to replace muscle power for many, and allows turning off the big outboard for others. Mounts for mini-outboards are readily available for mounting beside the main motor. Small rigs can also be mounted on sterndrives with special brackets that are now available. The big motors are especially inefficient at trolling speeds and, throttled back that far, often overheat, carbon up, and experience excessive wear.

At the other extreme, the best gas-saving advice is still the simplest. Cut back about 25 percent on the throttle from the fireboard position. We all rush enough during the work week — why do we have to be in such a darn hurry to get through our leisure time? Large outboards gobble up *15 to 20 gallons per hour at full throttle*. Backing off only 25 percent (to 75 percent throttle) will likely *save 4–8 gallons per hour*. Big inboards, with their four-jet carbs, can save many gallons by throttling back where possible to keep the high-speed jets from cutting in.

Then, too, there's the matter of good housekeeping. Like in the family auto, extra weight means fuel consumption. See what items you can *safely* do without. Do you really need that extra-length icebox — or could a smaller, portable, lightweight do the job? Do you really need all those bulky, personal effects on board at all times? Take off excessive poundage. (I've done it on my boat, now I'm trying to do it on my body.) What weight remains aboard, including passengers, should be trimmed and distributed evenly, or as you have determined is *best* for your particular boat's operation.

You may even want to consider investing in a fuel flow meter. It'll cost you $75–$100, or so, at discounted prices; but, at today's gasoline prices it could return its investment in a few short seasons. There's nothing that makes you pull back on the throttle faster than watching that needle constantly tracking the gallons of fuel (and your money) your rig is burning.

Finally, remember, you don't *have* to be running the whole time afloat. Some time spent at dockside is pleasant, as is drifting, or just sitting at anchor. If it means getting in a full, even if modified summer of boating, responsible fuel management pays off personally and for the country, if not the world, as a whole.

Written in March, published in June. That's the life of a columnist. And now that you're my proof I met the deadline for the June issue, what am *I* doing? Sitting aboard my boat, resting at anchor, and writing the September ***"Ashore & Afloat"*** column. With the hope, of course, I saved enough gas to get back in.

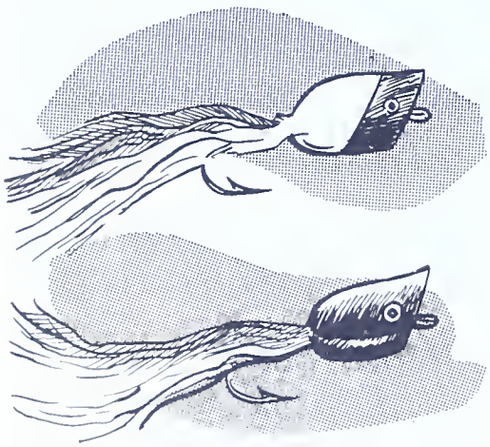
THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Hatches of aquatic insects are commonly regarded as pertaining principally to trout *streams*. This is true, of course, but insect hatches also occur in areas of weed beds and stony shallows in *lakes* and *ponds*, and fish feed greedily on them.

Streamers and bucktails need some help from water currents to make them the most effective. So, they are more productive in heavy riffles and other stream areas where there are good currents to help the angler make them look like lively minnows. In slowly moving water the angler has to do the job for himself, and the results are not as good.

Fly rod fishing for bass is surely in the minds of anglers in June. Popping bass bugs made of cork, wood or plastics are very popular. When you stock up, select lures that have faces with tops extending slightly more forward than the bottoms, for ease of pickup from the water surface. If the bottom of the face extends farther than the top, the bug will dig down into the water on the pickup, and a broken rod tip can result.



Use only rod varnish, and apply it in a very thin coat, when going over the guide wrappings on a rod. Fingernail polish and lacquer are likely to crack after they harden. Rod varnish has built-in elasticity that prevents cracking.

Hair-wing flies such as the Wulff patterns, in white, grizzly gray and Royal Coachman, are excellent surface flies for bluegills, crappies and rock bass. Flies tied on hooks in sizes 8 or 10 are best.

An inch or two of the tail end of a plastic worm makes a workable substitute for a pork rind to be attached to a spoon.

A jumble of rocks in a stream pool or lake is a favorite resting and feeding station for all species of fish. Natural food such as nymphs and crawfish frequent rocky water and are readily available to trout and bass. The rocks also provide a form of cover for the fish when they are resting.



Number One bait for yellow perch is a minnow two or three inches long.

Not all leaders are alike, in spite of efforts of the manufacturers to adopt mutual standards. If you make your own leaders, buy a leader kit which will contain spools of monofilament of different diameters and a table to indicate the correct lengths and tapers of the leader sections. Homemade leaders are less expensive than those made commercially.

Make greater use of trout flies that imitate terrestrial (land) insects. The naturals are available most of the summer season, while aquatic insects produce relatively short hatches. Trout feed well on such terrestrials as ants, beetles, crickets, inch worms and grasshoppers.

Water more than 10 feet deep is too deep for effective fishing with surface lures. Only rarely will fish come up through deep water to take a floating fly, bug or plug. In fact, fish near the bottom may not even see the surface lure.

Tiny split shot have a tendency to slip down the leader toward the fly. You can overcome this problem by placing the shot on the leader above one of the knots that join its sections together.

Fan-wing dry flies and bivisibles in brown, yellow, black or blue dun, tied on size 6 hooks, are good bass surface lures.

Yellow perch have their own preference in feeding times. While most fish prefer the beginning and ending of a summer day, the perch are on the prowl in the middle of the day. Probably the prime period is from 10 a.m. to 4 p.m. And it seems to make no difference whether the sun is shining brightly or not.

The trout fisherman who constantly changes the flies he uses is, in effect, trying to find a fly that the trout will take. A far more productive method is to select a pattern which the angler knows matches the insects native to the water he is fishing, then devote himself to the challenging task of pinpointing the location of the fish.

Spinners of different sizes and shapes are fished at different speeds to make them revolve properly. Take time to cast and try the action of a new spinner before actually using it.

Retrieve a weedless spoon at a brisk pace across lily pads or weeds to provoke strikes from pickerel and bass. The spoon will be more effective if a thin strip of pork rind is attached to the hook. Hold the rod tip high in retrieving such a combination.

Try nymphs for panfish, especially bluegills and yellow perch. Caddis nymph patterns are especially effective.

Trout feed wherever insects and other foods are available, which is why, on occasion, a hungry fish will partly emerge from the water to take a juicy low-flying insect. But most of the feeding is done under the surface, often quite close to bottom, which explains the effectiveness of nymphs, wet flies and streamers for trout and spoons and sinking lures for bass and members of the pike family.



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Pike County's Promised Land Lake

ENNSYLVANIA

Angler

JULY—1979

the Keystone State's Official FISHING·BOATING Magazine...

40¢ Single Copy





"Proud of the record . . ."

On May 28, 1931, Governor Gifford Pinchot signed into law Act 121, placing the responsibility for "the licensing of motors and the regulation of boats" with what was then known as the Board of Fish Commissioners. Motors were licensed at a fee of $1.00 per year per cylinder. The first boating regulations appeared in 1932, requiring only that motorboats "should be equipped with fire extinguishers and life preservers, sufficient in number to take care of the capacity of the boat." The only operational requirement stated: "It is suggested that in passing there should be 100 feet between the two craft." Not very complicated, but in those days of the Great Depression there weren't many people who could afford a boat.

The boom did not begin until after World War II and the Korean Conflict had ceased to distract our country's resources and energies, so it was not until the mid-50's that we began to find the time and money for recreation. Fishing and boating were naturals for growth.

The old Act of May 1931 underwent major revision in 1963 with the enactment of Act 400, known today simply as "The Boat Law." Some unique features of Act 400 should be discussed here.

The Act created an Advisory Board for boating within the Pennsylvania Fish Commission. This Board consists of five members appointed on staggered terms by the Governor (without the necessity of Senate confirmation). The law further mandates that the Fish Commission shall solicit the advice and opinions of the Board on all proposed regulations affecting the equipping and operation of boats. Coincident to Act 400, the Administrative Code was amended adding a ninth member to the Fish Commission to be appointed at-large by the Governor, with the stipulation that this Commissioner "shall be an experienced boatman."

The Boating Advisory Board meets at least twice a year to consider proposed amendments to the boating regulations, and to be briefed and brought up to date on boating activities by the staff of the Commission. This is a two-way street, as the Board also provides input to the staff based on their own areas of expertise. Potential access sites and their development are discussed. The proposed regulations are then considered for adoption by the entire Commission. It is usual for the Commissioner-at-large for boating to steer the proposed regulations through the Commission proceedings. It is also a practice for the Chairman of the Boating Advisory Board to be on hand at Commission meetings to provide further background and advice.

Does the system work? Let's look at the record. On only two occasions, and these were very minor, has the Commission declined to accept the advice of its Advisory Board. We think that's a good track record — considering the continuing and dramatic involvement of recreational boating. When you consider that about one-third of our Waterways Patrolmen's time is spent in boat law enforcement and education work, this is a very significant activity on the part of the Fish Commission. This spring, two of our Waterways Patrolmen were instrumental in saving the lives of three boating fishermen. Last fall, one of our Patrolmen saved the life of a five-year-old girl, using CPR and other training provided by the Fish Commission and the American Red Cross. In April of this year, the National Water Safety Congress recognized the Pennsylvania Fish Commission for its outstanding boating education program.

It is logical that the Pennsylvania Fish Commission, already patrolling the waters of the Commonwealth, should have jurisdiction over boating; and we are proud of the record the Commission has been able to accomplish with the signal help provided by its Boating Advisory Board.

Ralph W. Abele,
Executive Director

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

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ON THE COVERS

Hot and humid weekends bring boaters of all sizes and shapes, and from "home ports" near and far, to Lake Wallenpaupack. Access points, like the Ledgedale area pictured on our covers this month, become almost unbearably crowded, demanding exceptional maneuvering skill, but more especially, common sense and courtesy. Photos by the editor.

MONTHLY COLUMNS

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James F. Yoder, Editor

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KEEPER!

I'm a recent subscriber to the *Pennsylvania Angler*, and I'm very pleased with it. My name is Tim Yost and I'm 12 years old. I'd like to tell you about an experience I had last June at Pinchot State Park. I was fishing with my father and two friends in a rented boat. I was using 10-pound-test-line, and a worm for bait. All of a sudden I got a small nibble; I pulled up to set the hook and realized I had a small fish on. So, I started to reel up and suddenly my line stopped completely, and swiftly started going back down, doubling my 7-foot spinning rod. I couldn't stop this downward motion. Quickly, I looked down into the water and, surprisingly, I saw the back end of what I believed was a huge muskellunge. As I watched, it swam under the boat. It kept pulling for a minute or so. As quickly as it came, it let go. I reeled up my line and found a chewed up sunfish. To this day I'm not fully sure what grabbed the sunny. I am sure it was a keeper.

TIM YOST
New Cumberland

SATISFYING...

I was more than casually interested in the article "Pennsylvania's Wilderness Trout" in the March *Angler*. How refreshing, and encouraging it is to read of such enlightened management practices. It echoes (or does the reverse apply) the basic policy of Trout Unlimited, essentially, to manage a trout resource to its highest potential.

In these days of overworked, and underpaid staff, budgetary problems etc., it is satisfying to read that Pennsylvania's Fish Commission can operate effectively.

Keep up the good work, and perhaps we'll meet along one of our lovely streams.

DR. PETER T. B. SHAFFER
(a displaced Pennsylvanian)
Grand Island, N.Y.

GRIPING? NAH!

I don't want it to sound like I'm griping but why don't we have articles on fishing on Harrisburg waters. I am certain there must be some good fishing holes in Harrisburg but you people don't seem to want these holes printed about in your magazine. Also, could you print more articles on smallmouth bass fishing in Pennsylvania? To date, I haven't seen any yet. Come on guys, how about a little justice to Harrisburg.

STEVEN THOMPSON
Harrisburg

With the exception of occasional articles of a technical nature which are staff-written, the feature articles which appear on the *Angler's* pages are written by free-lance writers. And, although some fabulous fishing exists in the Susquehanna River in the Harrisburg area — both upstream and downstream from the State Capital — few writers would suppose they could entice anglers to journey into a metropolitan area (with its crowds, lack of parking, and other detriments to a fishing "experience") and simply don't write about it. No — it isn't that we "don't want these holes printed about . . ." we just feel about the same as the writers and don't pursue the matter. The number of successful boat and shore fishermen to be seen on the Susquehanna would lead us to believe that most of the "locals" know these "holes" and need little prompting or guidance. Smallmouth bass? We have printed, and will continue to print smallmouth bass articles — *when they become available.* Ed

"HOW MUCH CHANCE?"

I did a lot of trout fishing in the Yellow Breeches Creek in November. I saw a lot of spawning beds and they all had trout in them. These beds were not just in one section of the stream. I fished 7 different sections of stream that had trout spawning.

I was wondering how much chance there is of any of these eggs being hatched and producing streambred trout? I thought one of the Fish Commission biologists might be able to answer my question.

HOBART ACKER, JR.
Harrisburg

I am replying to your letter regarding trout redds seen in the Yellow Breeches Creek during November. Unfortunately, I have not had the opportunity to be at the stream often enough to have seen spawning redds myself. I believe that you and others who regularly fish the Yellow Breeches may already have an indication of the spawning successs of trout in the Yellow Breeches based on the number of fingerling trout that you catch.

The Fisheries Management Section is now in the process of inventorying the fishery resources of trout streams throughout Pennsylvania. This program, through evaluation of the biological, physical, chemical and social aspects of streams w result in a classification system by whi streams will be managed according to the resource potential. These investigations w identify those waters that support natur reproduction of trout, and the extent which this reproduction contributes to t overall fishery of the stream.

There are many variables which dete mine the success and contribution of nat ral reproduction to a fishery. Water qual ty, especially siltation, is a factor in t success of egg hatching. The carryi capacity of the stream and the amount protective cover for newly hatched trout f affects survival of the less vulnerab fingerling stage.

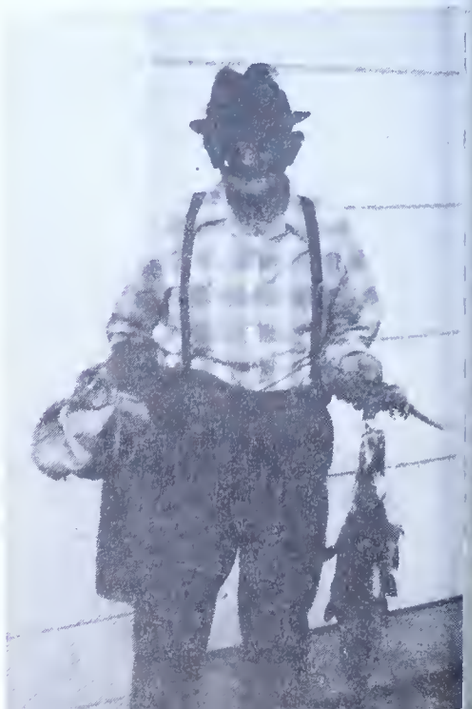
Due to the extensiveness of the tro stream inventory program, as well as warm water stream and lake evaluations in m management area, I will not be able schedule an inventory of the Yello Breeches until the summer of 1980. Th survey of the entire system will take 2 to weeks to complete. Interested sportsm are always welcome to observe surveys.

I am sorry I could not be more inform tive, but I hope that this response w suffice until a biological survey can completed.
Larry Jackson
Area Fisheries Manager

"NO MATTER..."

This is a picture of George Smith Elizabeth, Pennsylvania with one of t many catfish he caught in the Monong hela River here this past summer. Geor will be 89 years old on February 22 a has fished all his life around here. I a getting him a subscription to the *Pennsy vania Angler* for his birthday and hope y will print this picture for everyone to s that, no matter what your age, fishing is wonderful sport.

RUTH GRIFF
Elizabeth



"FIRST"?

Enclosed is the February 27, 1979 issue f Ellwood City Ledger the following arti- le that was printed.

We thought you might like to use this in he *Angler* which we read from cover to over. We thought this humorous and that ther readers might enjoy it too.

MR. & MRS. PHIL HERGENROTHER
Ellwood City

"Fish Crossing"

by Henry Bazzichi

"Motorist stops truck to let fish wim across roadway" is a fish story, ut a true one.

Ronald Sheldone, North Sewickley Twp., road foreman, reported he was riving to work yesterday at 4:45 a.m. n Country Club Road when his head- ight beam picked up the eye of a carp bout two feet long, swimming across he road. There were about three inches f water on the roadway. The fish was wimming from the creek side to the looded area of the Connoquenessing Country Club golf course.

Sheldone stated he stopped his pick- p truck to permit the fish to swim cross the road.

Sheldone reported the fish incident o Supervisor Jerome Skelly, who hought the fish story was too good to ot be recorded in the press and called he Ledger to contact Sheldone.

Sheldone, in relating the incident to kelly, stated "You won't believe what saw and did this morning."

Skelly jokingly remarked that he'll e taking the matter up at the next upervisors' meeting about having the ownship put up a fish crossing sign at his site.

(Editor's note: the above was eprinted with permission of the llwood City Ledger.)

MEANWHILE . . .

Since the above incident was shared ith the *Angler,* a "Fish Crossing" sign id indeed appear on Country Club oad!

Sheldone, left, and Skelly, right, join ther township employes in denying with a grin) responsibility for its erec- ion. Our special thanks to Henry azzichi for the report and the photo. ays Henry: "The sign brings a little umor and helps to brighten the day for iewers." Ed.

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MEALS from the CREEL

by Arthur J. Michaels

Pickled Fish

If you and your family were trekking westward through the Allegheny Mountains in July, 1879, your main concerns were shelter, clothing, and food. Carving your own highway, your journey was burdensome and slow; your storage spaces brimmed with tools and equipment for building shelter; and, there was no room for the frills of the covenient cooking contraptions of that era.

You had to preserve food out of necessity then, because with each struggling mile westward you anticipated dangerous uncertainty as well as promise.

Pickling is one method of preserving food by which the first settlers of the Keystone State survied. Today, pickled fish and vegetables can be a light meal from your creel for a hot day this summer, in addition to giving you a taste of the last century. And, even though the herring is the most common fish to be commercially pickled, just about any species found in the Keystone State can be deliciously pickled to perfection.

Anything that's pickled, of course, is preserved by salt and acid. Generally speaking, salt takes away sugar and moisture from the pickled ingredients to form lactic acid which guards the ingredients against bacterial spoilage. Fish is either pickled for a short shelf life or for a long storage period, up to six months under refrigeration. Consider first a quick pickle. (You may even call this, simply, a marinade.)

PICKLED FRIED BASS

1½ pounds fresh bass fillet (largemouth or smallmouth)
½ cup oil
½ cup flour

PICKLING MARINADE

1 cup cider vinegar
¼ cup water
2 tablespoons brown sugar
1 thinly sliced lemon
2 cloves garlic, sliced
1 bay leaf
1 pinch each sage and grated nutmeg
salt and pepper to taste

Sift the fish fillets in flour, and fr them in oil until browned on bot sides. Place fish in a medium siz oblong glass dish to cool. Set aside Make the pickling marinade b putting all ingredients except lemon i a medium saucepan. Cook ove medium heat for four minutes an bring to boil. Remove saucepan fron heat and cool. Pour mixture over bas fillets and add lemon slices. Cove glass dish tightly and refrigerate fo two and a half days. Serve cold (Serves four)

Pickling recipes have less standar specified ingredients than just abou any other cooking procedure. In Penn

sylvania, at least, the reason is simple. Consider again your westward travel one hundred years ago through the frontier of the Alleghenies. With limited storage space, you, a pioneer woman, had scant space for the luxuries of the Atlantic seacoast farm. Left behind were your bins brimming with beans, squash, and dried corn. And your large cache of pickling and preserving spices cluttering the kitchen were now a homesick memory.

You and your determined husband were not to be beaten. Sewing small pockets in the hems of your dresses and petticoats you stored small amounts of herbs, seeds, and spices. In this way you fashioned each frontier meal with a small amount of what you had and with the new spices and cuttings you discovered along the way.

Pickling recipes today still feature unique flavorings, each specific pickling recipe concocted from the group of over eighty different herbs and spices available in supermarkets today. But just as you did a century ago, the best pickling plans are guided by *frugal* originality.

Commercial pickling establishments have their own recipes and combinations of seasonings. Here are the twelve most common pickling spices which you can combine to suit your own taste: allspice, mustard seed, ginger, coriander seed, black pepper, cinnamon stick, cloves, bay leaf, red pepper, dill seed, mace, and cardamon.

You can experiment with combinations of these seasonings in this simple fish pickle. Cut any fish into bite-size pieces. In a glass jar, layer the fish with sliced onion rings, pieces of red pepper, black peppercorns, a bay leaf, and a mixture of half white vinegar and half fresh lemon juice. Add any spice combination that suits your taste. Refrigerate this fish pickle for a full day, and serve cold. The fish should turn white, "cooked" in your refrigerator by the lemon juice's citric acid.

If you want your advanced pickling procedures to produce near-perfect payoffs, consider carefully the correct utensils and ingredients. You must use new jars, for instance, with vacuum seals. Select jars with metal spring clips or screw bands, both of which use a rubber sealing ring. Soak a new jar in warm water for a few minutes, and just prior to use, dip it in boiling water. Do not use peanut butter, coffee, or commercial pickle jars.

Furthermore, us a vinegar of four to six percent acidity, or 40 to 60 percent grain strength. White distilled vinegar is a good choice because it will not darken light-colored foods. In addition, white vinegar contains no sediment or flavorings which may change the taste radically of your pickled fish not to your liking. A vinegar's percent of acidity should be written clearly on the bottle's label.

And for each pickling recipe you try, use fresh, whole spices. Especially during hot weather, spices and herbs lose their flavors quickly. Old spices will produce a peculiar tasting pickle, and they may discolor your fish pickle ingredients unattractively.

If you want your fish pickles to be delicious, don't use tap water. Mineral laden, chlorinated hard water will interfere with the pickling process. Boil water to be used, and let it stand for a day. With the sediment settled on the bottom, skim the top and ladle the water from the top. Is this too much trouble? If so, use bottled distilled water.

Do not use brass, iron, galvanized, or copper utensils. The salts and acids you're working with will react with these metals producing undesirable colors and tastes. More importantly, you may even produce poisonous compounds this way! You'll produce the poisonous compound copper acetate if you heat vinegar in a copper utensil! Use stainless steel or wooden utensils instead.

Try also not to stick your fingers in a pickling solution. Tongs and a jar lifter may also come in handy.

If your pickling recipe calls for salt, do not use table salt. The extras in table salt — bicarbonates of sodium, starch, and iodine — will soften and discolor your pickled ingredients. Instead, use a pickling or kosher, pure granulated salt.

Begin your pickling pioneering with the recipes in Pennsylvania Anglers' Cookbook (available from the Pennsylvania Fish Commission for $2.50, P.O. Box 1673, Harrisburg, Pa. 17120. Checks or money orders, please.).

Having tried your hand at fish pickling, you now know that things can go wrong. If you're a novice fish pickler, some things that appear wrong are really okay. So here's how to tell the difference.

First, a warning: If your fish pickle smells uncharacteristic of any product you've included, don't taste it — just discard it. Besides unwholesome smell, cloudy liquid and abnormal appearance of the ingredients indicates spoilage.

If your pickled ingredients are soft and mushy, you didn't use enough salt, or the strength of the salt didn't last. You'll get soft and mushy results, too, if the vinegar was not strong enough or if some of the ingredients were not kept submerged in the liquid.

Ingredients turning dark in your fish pickle is another common failure. If you use iodized salt, of if you used hard water containing iron, your pickle will darken. Using old powdered spices may also darken your pickle.

As your pickling prowess progresses, you may wish to try herbed and flavored vinegars instead of the usual white vinegar. Here is an herbed vinegar you may wish to use for a fish pickle.

MARJORAM VINEGAR

5 cups white vinegar
4 ounces fresh marjoram

Break the herb leaves and add them to the vinegar in a tightly covered jar. Let stand for six weeks. Strain herbs from vinegar and store remaining liquid in well sealed jars. Use this herbed vinegar in salads as well as in fish pickles. Try this same recipe with tarragon, thyme, or sage, but use only a stainless steel pan for cooking and a wooden spoon for stirring when necessary.

In addition to herbed vinegars, celery vinegar will add delicious flavors to your fish pickles.

CELERY VINEGAR

5 cups white vinegar
1 large head of celery, well-scrubbed
1 tablespoon salt
1 tablespoon brown sugar

Pour the vinegar into a stainless steel saucepan. Chop the celery finely and add it to the saucepan with the salt. Bring to boil over medium heat and remove from heat quickly. Pour the celery and vinegar into a jar. Seal the jar and let stand for two weeks. Strain and store remaining vinegar in well-sealed jars.

Those Crazy People . . . Fishermen



PART VI — Of Tippets, Tails & Other Endings

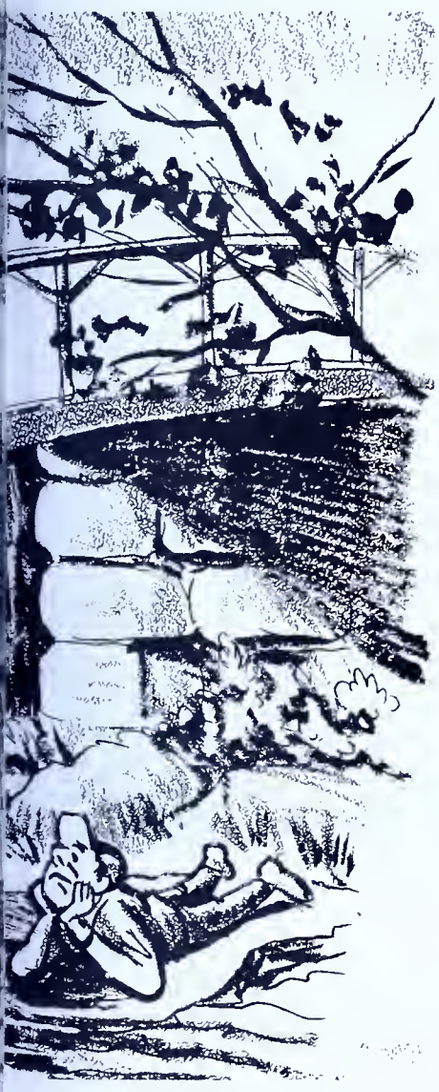
About a week ago some wise guy called me a fisherman. It startled me, to say the least, especially after all the work I've done in the past six months to teach folks how to recognize fishermen, to hear this seemingly intelligent fellow up on the bridge suddenly call me one. I mean, just because I was lying there on my belly in the middle of Spring Creek watching the annual emergence of *Ephemerella subvaria* is no reason to start calling me names. Everyone does that when the hatch comes . . . don't they?

I was lying there with my arms crossed on a piece of limestone and my chin in my hands, watching these nymphs turn into flies, and I heard this little girl laughing. I looked up at the bridge and there was this wise guy with a wild look on his face saying, "Oh no! A fisherman! Quick, honey, it's time to go home! In the car! Hurry up!" And as I looked up, he scooped his little girl up in his arms and went running off the bridge and into his car. With a screech of tires and a cloud of dust they were gone. I don't know what they were so all-fired excited about.

It's strange, but now that I think about it there have been quite a number of strange things like that happening lately, ever since this series started back in February. There was the time I went into the Knotty Pine Restaurant down at First and Water Street and ordered potato salad. The whole place cleared out in ten seconds, folks going out every door and window they could find like someone had tossed in a bomb, and the waitress dropped a whole order of franks and beans on the floor, and went running out the kitchen door pulling her hair out and screaming at the top of her lungs. And the time Earl and I were bowling at the Tuesday night league and he dropped the bowling ball on his foot and said, "Aw, @#$%! My *blankety-blank* toe!" and everyone went running out, leaving their bowling balls and their shoes and their four-seven spares and everything!

Yes, it's all coming back to me now. There was last Saturday when I was over at Earl's place for dinner. He and his wife live in this quaint little farmhouse at the edge of a wide, sloping cow pasture, and their kitchen

by E. W. Fisher



the conclusion

window looks out over the pasture at a big fish-filled riffle on Spruce Creek. Earl was in his frilly pink apron doing dishes, and I was drying, and we were looking out the window at the cows grazing and the stream rushing down over the riffle, when we saw a trout rise. Earl let out a whoop and went charging out the door trailing soap suds, grabbed his flyrod from the rack on the back porch and, without breaking step, came down on one of those slippery things you so often find in a good cow pasture, and went skidding on his backside all the way down the hill and into the creek in his frilly pink apron, double-hauling and shooting out as he went, with an enraged Hereford bull about six yards behind him. He caught the trout, Earl did. I know: I went running and slip-sliding after him with my dish towel and a landing net.

And one weekend my brother D.W. called me and said my little nephew C.W. wanted to come spend a couple days with his uncle E.W. It was suggested I take him to the zoo and then go downtown to catch the Saturday matinee, then maybe go out for a milkshake or a sundae. When little C.W. arrived, though, something came over me and we went up to the county seat and watched some guy from the local trout club give a seminar on *How to Bleach Brown Hackle to Obtain Light Ginger*. Then we hurried down to the lower Raystown Branch to catch the latest caddis hatch. My little nephew hasn't come back to see his old uncle E.W. since, and my brother and his wife aren't answering their phone.

I don't understand it.

Every time Beth and I go into a store I go running off to the sporting goods department to squeeze one of those red vinyl pillows with the heat inside, and I always buy some gadget like a Synthetic Sponge Line-wiper or a Fluorescent Landing Net. When we walk into the grocery store I head straight for the meat counter and ask the butcher for all his calf innards and chicken entrails. What bothers me most is how all the customers in the stores take one look at me squeezing my red vinyl pillow or reaching for my calf innards and then scream, "Fisherman!" and go puffing off to the far side of the nearest counter where they stand shaking in their shoes and staring at me as the world's first mailman no doubt stood staring at the world's first Doberman pinscher. Beth always has to come after me and lead me away, nodding and smiling and apologizing to everybody for letting me loose.

I guess the strangest incident of all, though, happened about three weeks ago. I took this notion to have a sandwich one afternoon. We had guests, and naturally I felt it was my place to ask them if they would like a sandwich too. They said yes, they would, so I went out into the kitchen to make a few innocent little sandwiches while Beth kept the conversation going in the parlor. They were beautful sandwiches, and I didn't skimp on the sardines or the peanut butter, and just to make them a bit fancier I put a slice of onion and a spoonful of horseradish on each one. Then the strange things began happening. I wrapped each sandwich in waxed paper, went and got the cooler out of the closet in the hall and laid the sandwiches in the bottom of the cooler. They looked awfully small and alone in there, so I tossed in a six-pack and a jug of water and covered everything with ice cubes. Then I left. I don't know what came over me, but I took the cooler with everybody's sandwiches in it, went down to the car and drove up to the lake.

Beth found me there that night, sitting in the poison ivy halfway down the bank, gawking at the bass rising and pushing peanut butter and sardine sandwiches into my mouth. There was foam around my lips and three empty beer cans lay in the half-melted ice in the cooler.

And now this wise guy fisherman up on the bridge is calling me, of all the names he could think of, a *fisherman.* And I guess if he went down to the other bridge and saw Earl down on his knees in the creek turning over stones and grabbing at crawdads and screaming to beat heck every now and then when a crawdad grabs him, he would probably shout, "Fisherman!" again and go running back to his car. Well, I suggest to you, fella, that you read this here series. Fishermen are terribly easy to recognize, and if you would only take the time to learn one or two basic characteristics of the *real* fisherman you wouldn't be running around calling normal red-blooded American folks like me and Earl all these insulting names.

Come to think of it, the wise guy even had a copy of the ANGLER in his back pocket; I saw it as he went running away. Wonder why he never opened it and read what it had to say . . . ?

Well, I'd like to sit here at my tying bench and write all day, but I really have to go. It's a quarter past two already and the major solunar period starts in an hour. I have to meet Earl down at his place: he's got the boat all ready to slap on the top of the car, and he said he was asking his wife to go along and operate the anchor. So it's been nice writing for you, and I hope we've all learned a little something, but I really have to be going now — I still have to pick up the potato salad.



The author took to the air for these views of Berwick (right) and Nescopeck (left) and a look at a few old eel walls.

WHEN THEY CAUGHT EELS BY THE TON

by Ted Fenstermacher

Two old-timers were reminiscing at the traditional eel fry held annually by the Nescopeck Volunteer Fire Company. As one crunched his teeth through a crispy piece of eel he observed, "These eels are good, danged good, but isn't it awful to have to bring eels from the Delaware to Susquehanna Valley? Why, we used to call this the 'Eel Capital'!"

His companion agreed. He, too, could remember when the best eel walls in the Berwick-Nescopeck area yielded up to a ton of eels each in a single night during the "run."

Not that the stone walls were unique to that particular part of the Susquehanna River — they were also in use for many decades at points all along the river. Perhaps the "capital" angle came from the exceptional number of walls, also called "weirs," in that area.

Dozens of walls were operated between Bloomsburg and Shickshinny, a distance of less than 20 miles. The V-shaped walls were only about two feet high but were usually two to three hundred feet long.

Countless hours of hard work were represented in each because they were built up of stone taken from the river bottom.

The river, of course, belongs to everyone, but the walls were considered the property of the builders. They used the same walls, year after year, and the second generations were the "owners" of many.

Most of the eel fishermen started work early in the summer on their walls. If the river had not hit really high stages during the winter and spring the walls bore at least a reasonable resemblance to the previous year's.

But if the river had been on a rampage, trees and other floating debris could, and often did, tear out whole sections of the carefully piled up stones. Such happenings were accepted as being part of the game.

Practically all of the eel fishermen held regular jobs with most employed in the Berwick plant which, at that time, was the biggest railroad car building plant in the world.

Hours of late afternoon and evening work had to be spent in scrounging rocks from the river bottom and building the walls. It was anything but a rest — after a day at the car shops — but as one veteran fisherman said, "At

east it was a change."

In addition to the stone work there was carpentry involved. The so-called wooden "baskets" had to be built and installed at the lower end of the V-shaped walls.

There were a series of sets of slats, mounted closely on crosspieces. They extended up at an angle from the river bottom. As the water poured through the slats the eels would suddenly find themselves being raked into gunny sacks instead of continuing their down-river trip.

A substantial amount of wood was needed for the framework and the scores of slats in the big traps. That purchase of wood was the principal cost involved — if the fisherman did not count his time. They didn't. It all came under the heading of "sport." The fact it usually also yielded a profit, sometimes a large one, didn't dampen the men's enthusiasm.

It yielded a profit, that is, if conditions were right. Sometimes the eagerly awaited fall rise in the river which, coupled with the first hard frosts started the eel run, was far too high. In such a case the eel baskets sometimes were torn out by the current despite the elaborate precautions made to anchor them.

There also were times when the river's rise was so high that it carried the eels right over the tops of walls and baskets.

Most years, however, the project was reasonably successful. Year after year the same wall operators labored and then waited for the "New York State eels to start to run."

Tending the wall was the next task. The state prohibited the trapping of eels during the day and the weirs had to be left open in daylight hours. That was done to make certain plenty of eels would get down the river to the bay and then to the Atlantic from where the eels went to the Sargasso Sea, near Bermuda.

The theory was, of course, that after the old eels spawned in the Sargasso Sea, the new eels would return to the rivers that had been the homes of the parent eels. And so they did — until power dams of utilities made return almost impossible.

Oh, it would seem that a few eels do get back. Occasionally an eel will be caught in the Susquehanna by fishermen. This may be due to the fact eels can, according to biologists, travel a short distance over land.

At such times the eels will wriggle through grass but only in bright sunlight. Even the passing of a cloud over the sun will cause them to stop and hide. Eels are said to be able to hold some air in their bodies for the more difficult parts of their trips.

The Susquehanna was a beautiful sight at night during the fall eel run. The soft glow of dozens of lanterns could be seen. They were on the boats used, and also on the small platforms, and, in some cases, on shanties at the baskets.

The walls were, of necessity, built in parts of the river that were not deep.



Each year the outlines of the old eel walls in the Susquehanna become more indistinct — a fading monument to a busy bit of "moonlighting" in another era.

As a result, the boats were usually poled instead of rowed.

After the eels were raked into the burlap bags the tops were secured and the catch placed in the boats.

Many of the area fishermen had concrete holding tanks — usually six or eight feel long and three or four feet wide by about three feet high. They were of poured concrete with the forms made of scrap lumber by the fishermen.

Water was run continuously through the tanks. Screening over the outlet hole prevented the escape of what were to eventually become toothsome morsels. The water was of no special concern because there were no water meters in most homes up until the time most walls were abandoned, "around the thirties," according to one veteran.

Not everyone had the concrete tanks. Some found old bathtubs to be a reasonable substitute.

Most of the fishermen sold the eels from their homes. The late John Harter, veteran riverman and wall operator, said some customers had standing orders for a few eels each week.

Fire companies, lodges and other groups sponsored eel fries for many decades — the custom is still continued by the Nescopeck firemen. There was also a good market in cities and dealers from there sometimes came to the Berwick area to purchase the fish.

While eels were pouring into the baskets substantial numbers of fish, bass and walleyes in particular, also came into the weir and were caught.

"That provided a real test of the respect for law on the part of the men," one veteran wall man once commented. "There were some who tried to keep *all* the fish that came in, but I'll have to admit that even the law-abiding, including me, usually kept a fish or two while tossing the rest back into the river."

Dale C. Andres, Sr., a retired florist and fishing buff, clearly recalls when, as a youth, he would, at times, spend nights on the eel walls of the Berwick area. He recalls that wall operators included: Harry Swank and his sons, Charley Stout, Otto Parr, John Harter, George "Corky" Shortz, Jr., and Warren "Mollie" Pifer. His father, Charles Andres, who had also been a florist, felt that eels were an excellent food and the son recalls his father had a specially made pair of pliers (which could both cut and hold) made for the skinning of eels.

Eels coming down the river were in good flesh because they needed a reserve of fat to keep them going while en route to the Sargasso Sea to spawn. That unique sea, near Bermuda, is so filled with "gulf weed" that boat navigation is difficult in places.

Scientists believe the eels go to the Sargasso Sea to spawn because they need the deep water, it's about 1,200 feet there, in order to eject the eggs.

(continued on page 26.)



"John Smith holds coho salmon he has just landed — one of nine that three of us landed that evening in about three hours."

Deep Trolling for Erie's Salmon — Part I

How it began . . . by Howard Bach

"Who would have believed this?" John Smith was speculating, to no one in particular, as he landed his third coho salmon while fishing about seven miles north of Shorewood. We were one of about 35 boats in the vicinity, most of which got their limit that day.

I couldn't resist answering John's question, even though he was well aware of the history of the Lake Erie salmon fishery.

"John, many people not only would have *believed* this, but actually *knew* it would happen. For seven years various believers have persevered to get this fishery working, and this is just the beginning."

The reason these people *knew* the great salmon fishery in Lake Erie was to come alive was that we were all intent participants in the similar salmon fishery, and in some cases the emergence of that fishery, in Lake Michigan.

Two elements were absent in the Lake Erie program that are essential to a successful salmon fishing program: organization and communication. So long as individuals would catch their individual salmon, and not tell others where and how they caught them, there could never be a program that would benefit everyone — including those individual anglers.

Although a handful of determined salmon fishing addicts tried to get the necessary cooperation started, their attempts were not successful prior to 1977. To get the program moving it would take many more boats, the more the better, fishing on a regular basis, and reporting their successes daily.

The real birth of the Lake Erie offshore salmon fishing program came one snowy night in January, 1977, when a meeting was called in Erie to bring together those interested in seeing the salmon fishing program working in the lake. In spite of inclement weather, over 50 salmon enthusiasts turned out.

The meeting revealed that there was no shortage of information on how to catch the salmon, the equipment and lures to use, or the necessity of finding them out in the lake during the hot summer weather. What was lacking and would be the key, was the central organization to unite them in a common endeavor and proper two-way communication among all the anglers involved.

The result of the meeting was the formation of a 14-man steering committee headed by Ted Halgren. Their assignment was to review and make recommendations to bring about the necessary organization and communications system to locate and track the salmon in the summer water.

A formal organization never did arrive, but the informal team that has guided the activities in Erie has functioned as few formal groups ever have done. They set up the communications required to follow the salmon activity, and provided aids to all fishermen desiring to share in the salmon bonan-

za. First came the map of Lake Erie with a grid to identify location of the salmon (every square mile of water in Pennsylvania's section of the lake was included). There had been a map in 1976, but the new map had accurate grid lines and showed bottom contour of the lake, an invaluable assist to locating the fish.

Next, they set up a "hotline." The hotline is a recorded telephone message that is updated at least weekly, and more frequently as changes are noted. Without an organization to raise funds for the project, a lot of private funds were donated to the cause. It remained for John Smith, Manager of the Howard Johnson restaurant, to offer to sponsor the hotline. The project was off and running.

Buoys were constructed, at a cost of about $40.00 each, with flags to mark the locations of salmon schools as they were located. Volunteers from the hard core of active salmon fishermen tended the buoys and demonstrated the beginning of the program by passing along their findings to all persons interested in knowing.

Mid-July, 1977, brought success to their efforts. They found salmon — five separate schools of them — about seven miles north of Shorewood over two underwater "hills." The mounds are about 40 feet below the surface of the water adjacent to the point where the water drops off steeply to about 110-foot depth. One common pattern revealed the fish were taking lures in 65- to 80-foot depths just off the north slopes of the hills. For those who called the hotline, they could learn the exact map coordinates of the schools, then run out there to find a flag marking the spot. There was even a "big brother" program among the leaders of the movement to gather their boats at the bay at 8:00 a.m. and act as guides (and added insurance) for the smaller boats that made the trip to the site.

There was no jealousy to keep secret the location of the schools. Rather, they encouraged as many boats as possible to participate, knowing there were plenty of salmon for all. Also, the boat that is helped in finding the salmon today might be the one to report a new school tomorrow.

The action continued for weeks. Whenever the boats could get out, weather permitting, that is, they were taking limit catches of coho. The one spoiler was the weather. Not only did it keep the boats off the lake for periods of several days, but some violent storms in late August stirred up the lake and scattered the fish. Then it took several weeks before they were again located, this time moving closer to the streams they would eventually reenter.

As with most active programs, there were spin-off benefits, this time to the land-based, or cartop boat fishermen. Many of the coho taken out in the lake were fin-clipped, identifying them as salmon planted in the bay. This would indicate that a great many salmon should be returning to the bay, making it better (or as good, at least) than the traditional action seen on the tributaries each fall.

The 1977 action was only the beginning. It proved that organization and communication could get the job done — i.e., making an offshore fishery work. This small success, with the widespread notice it received, was the impetus needed to get the activity started earlier in future years.

In 1978, the salmon action started earlier, but really didn't take off properly for a very good reason: the bass and walleyes were hitting so well near shore that there was not enough incentive to move out to deeper water for the salmon. When the "fleet" finally moved out, the rewards were worthwhile, for regular limits were taken from mid-July to October.

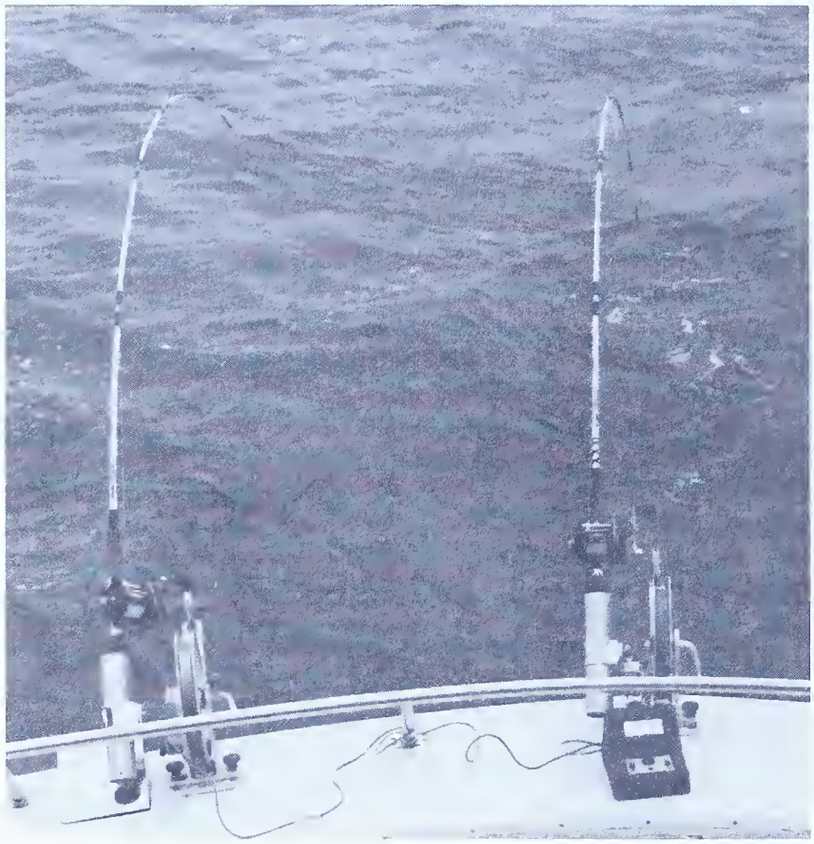
This year salmon fishing might start earlier and be even more successful. As the salmon fishery grows, we predict that offshore Lake Erie salmon fishing will begin shortly after ice-out and continue steadily until the fall spawning run.

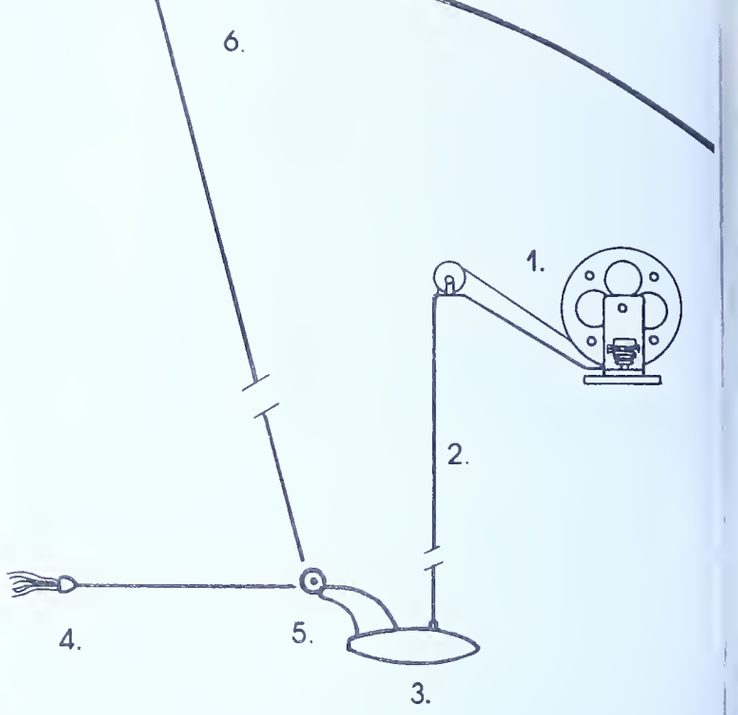
We can foresee a Lake Erie salmon fishery with daily activity reaching about 100 boats deep-trolling in well-defined migration routes. There could well be charter boats available for fishermen who want a day or two of salmon fishing!

Salmon coming to net, extreme right of photo (angler is out of photo, to right). Rod and downrigger assembly in foreground belongs to another angler.



equipment needed to fish deep water, it is very difficult to run up a score."





Basic deep trolling system consists of (1) deep troller (2) trolling line, (3) trolling weight, (4) lure or bait, (5) line release mechanism, and (6) fishing rod and line.

Deep Trolling for Erie's Salmon — Part II

How it's done . . . by Bob Chandler

The salmon fishing in Lake Erie and its tributaries was not all that great in 1977. There was a small group of anglers, however, that did find and catch their share. The "Erie Downriggers," as their club is named, ran up some big scores. The club was formed after their successful season that year. And, after only four official meetings, they boasted 150 paid members.

With over fifty outdoor-related sports clubs in Erie County, I must admit that I had my doubts about the club's possibilities. My doubts have since diminished because of the quality of leadership, and the programs the club has developed. Ted Hallgren is the president and is working hard to insure success.

The purpose of the Erie Downriggers is to help its members catch fish. The speakers appearing at the mini-seminars that have been held are helping everyone do just that. Without an understanding of the equipment needed to fish deep water, however, it is very difficult to run up a score.

Maps were made which divided every square mile of water in that section of Lake Erie within Pennsylvania's "borders." Radios were used to report where the fish were — from boat-to-boat, and boat-to-shore. In 1978, instead of twenty or thirty boats searching for fish, there would be over seventy. Several anglers have since traded in their fourteen- or sixteen-foot boats for larger fishing platforms.

Almost every boat has two or more downriggers, and a half-dozen trolling planes. There are fourteen companies making downriggers and six making electric models. The manual downrigger is just that — you must reel the steel cable up by hand. On the electric models, naturally, a motor does the work.

Some old salts with sailboats have asked if they can troll the depths for salmon. Most have an auxiliary engine, and an angler might just be able to troll for and catch fish while under sail (we promised one friend to give it the old college try this year!).

Deep-water equipment ranges from five dollar planers, such as "Pink Ladies," to thermo-probe electric downriggers which cost more than five hundred dollars! Sport tackle is used, and ranges from medium weight freshwater tackle to lightweight saltwater gear. Most anglers are using their walleye and bass tackle. For those who can afford extra outfits, steelhead rods are very popular. Several anglers have built 8- or 9-foot blanks up to their own personal preferences.

While trolling, your line is attached to a release on the downrigger. When a fish strikes, the line pulls off the release. From this point you're free to play and net your fish with your regular sport tackle, just as if you caught him on a "flat" line.

Spoons resembling smelt and ale-



The "Riviera I," above, is admittedly not your everyday cartopper! But then, Lake Erie is not your average farm pond, either! Big rigs such as this are ideal, naturally, but not absolutely essential (in good weather!) for an offshore deep trolling expedition. The photo below, save for Erie's salmon fishery, could not pass for a Pennsylvania scene — but it certainly is!



wives are very effective. Color preferences change with density of water and light penetration. Silver and blue combos, and chartreuse colors, have been the most talked-up and purchased. Plugs normally used for bass, walleyes, and northern pike are also doing very well. Spinners are not recommended for use with downriggers or trolling planes. While they do very well on flat lines, they tend to tangle behind the deep-water equipment.

Reels, too, become a matter of personal preference, although one thing to consider is a large line capacity and an excellent drag. Fish caught in deep water with downriggers averaged much larger than the fish caught conventionally in prior years. We caught "average" size coho last year which were even larger than those taken from Lake Michigan. Their chinook are averaging much bigger, but their coho have been coming down in size each year.

On several occasions we caught coho that averaged over ten pounds. When we found a school of mature fish they would run from seven to fourteen pounds each. You will catch some three- or four-pounders, but not as often as seven to nine, or eleven to fourteen. The chinook are not being caught as often, and that might be because of the way we are rigging up. We are fine for coho — but a chinook is a much different feeder.

To catch chinook, you must "hunt ... off away from the pack." A chinook will travel alone, or with maybe two to four of his kind. They are much spookier, even as smolt in holding pens. To really hope to take them, an angler should fish at a minimum of fifty yards, i.e., *one hundred and fifty feet* behind your downrigger weight. You should also fish your lure as close to the bottom as possible. By close, I'm not recommending five feet, but *one foot*.

The same lures or spoons will take either a four-pound coho or a twenty-four-pound chinook. The coho, however, will hit the lure two feet behind your weight — a chinook will not. Chinook hit better when a dodger or flasher attractor is used. They seem to need more of an incentive to strike.

The Erie Downriggers have learned by studying and have had considerable help from the Michigan anglers. Several of us have made the trip to the Lake Michigan fishery to try our luck. We have usually done very well there. On one trip, George Simon, Bud Curry, and Stan Skrypzak caught twenty fish over sixteen pounds. Their largest was twenty-four pounds — a beautiful chinook. Several of our anglers have also brought home nice fish, but more important than fish alone — *knowledge*.

Trout are an added bonus for Erie anglers. Nice brown trout, lake run rainbows (steelhead) and a few lake trout are being caught. Start looking forward to some ten-pound browns, twelve-pound steelhead, and six- to eight-pound lake trout. I recently caught a brown trout over seven pounds and it was worth the price of a lifetime of fishing licenses!



"More than a few" Pittsburghers take advantage of the water sports available — some are content to be spectators.

"Suburban Boat Cruise"

by Julia M. Gilman

photos by Russell Gettig, Staff Photographer

Transportation, shipping, and commerce are all words that come to mind when thinking of the Allegheny River, but for our family and many other Pittsburghers, the Allegheny River means simply beauty and fun. Sunday afternoon, having little time for trailering our powerboat to a distant lake, we took a short cruise on the Allegheny River near Oakmont, a suburb of Pittsburgh. We were very pleasantly surprised. The beauty of the wooded hills that line the shores and the number of pleasure boaters using the river were unexpected. We soon found that a good many people use the river too, as marinas nearly lined the shores.

Being cautious people, we had purchased a set of Allegheny & Monongahela Rivers Navigation Charts. This book gives very thorough charts on both rivers in their entirety, showing launch sites, bridges, channel line, and most important, dams. The price is $2.00 and may be ordered from the Corps of Engineers, 1000 Liberty Avenue, Pittsburgh, Pa. The dams are difficult to see from a low-lying pleasure boat from the upriver side. To avoid an extremely unpleasant surprise, especially if you're a newcomer to the area, it is wise to know where the dams are before using the river.

After leaving Exit 5 on the Pennsylvania Turnpike, we were ready to launch the boat at the nearest launching ramp. Using our book of Navigation Charts, we saw the nearest launch site was at Harmarville, just off the Twelve Mile Island in the River. This turned out to be private property and it cost us a total of $4.00 for launching and parking. This was the first time we had paid a launching fee in the history of owning our boat. Apparently most launch sites in the Pittsburgh area are private.

After a rather treacherous launching on the very steep ramp we started the boat and were immediately intrigued by the houses along Twelve Mile Island. This is a long piece of land in the river which is not actually an island, but comes very close to it — there is a footbridge to the "island." The houses are all obviously only summer cottages and very inexpensively built because of the ever-present danger of flooding. The atmosphere is that of cottages along any lake,

elaxed and vacation-like. We watched ome boys swinging on a rope out over he river and were reminded of Tom awyer on the Mississippi.

Soon we rounded the end of the sland and were in the middle of the ower Allegheny River. The amazing hing about the river is how far across nd large it is here. It is much larger han many of the nearby lakes, such as rooked Creek Lake. This was a hot lay and pleasure boats were out in arge numbers. We saw a sailboat, a ew canoes from the Duquesne Canoe lub and many large houseboats and owerboats with water-skiers behind hem.

Cruising west, or downstream on he river, we passed a number of boat ocks, among them the Blawnox Boat lub, Oakmont Yacht Club, and Harbor Isle Boat Club. Tied up at hese docks are boats seemingly large nough to be at home on the ocean. Many of the houseboats were the omes of Pittsburghers. We specu- ated on the difficulties of carrying all he groceries down the long piers to the oats.

The unspoiled beauty of the wooded ills was very surprising. This close to owntown Pittsburgh (approximately ten miles), we expected the river to be completely lined with ugly factories. Quite to the contrary, we saw a few, well-built and attractive factory buildings, but otherwise there were only boat docks and steep wooded banks in view. East of the Pennsylvania Turnpike, upriver in the Cheswick area, there are factories lining the river, so the Oakmont area is a better choice for pleasure boating.

Our children wanted to water-ski. Waterskiing on the river does involve some danger. There are some branches, tin cans and other debris floating in the water. The current must also be considered. The downed skiier tends to float downriver faster than a boat. If possible it is best to steer the boat upriver, against the current, so a downed skier will not float into the boat. The water appeared reasonably clean, but it is still best to avoid taking an inadvertent sip of it.

The water is indeed much cleaner than in previous years. There were numbers of fishermen, and women, fishing from the shores and from fishing boats.

What is a boat outing without food? As the dinner hour approached, we decided to try one of the several excellent restaurants on the shore that take advantage of the spectacular view. We tied up our boat at the Oakmont Yacht Club and ate dinner at the Mermaid restaurant overlooking the river. This restaurant has windows along the side that resemble porthole windows. The full length of the back is windows looking out on the spectacular yachts tied at the docks below. Most of the food is Italian with a few delicacies such as stuffed mushrooms on the menu. Prices were quite reasonable. Feeling completely stuffed, we returned to our boat, and decided to take a look at the locks on the dam.

A person could actually take a boat all the way to the Mississippi. It would take quite a while however, because of the numerous dams to be negotiated through locks. Between "The Point," at Pittsburgh, and the town of East Brady, a distance of some forty miles on the river, there are eight dams, each requiring the process of "locking through." We didn't own any bumper pads to protect the sides of the boat so we decided to "lock through" another time. Returning to our car, we reflected on a quick and very enjoyable cruise on the mighty Allegheny, vowing to return again.

'A person could actually take a boat all the way to the Mississippi," says the author. We wonder . . . how many have?





Summertime Trout with "LTT"

by Linda Steiner

illustrated by the author

I watched in fascination as my rod tip bent double. The throbbing through the ultralight wand told me I had hooked a good fish, and the flashing form beneath the water confirmed it. I played him slowly and carefully, afraid to break the two-pound-test line or pull the number 16 hook from his jaw. When the foot-long brown was at my feet, I reached down and dislodged the hook, and watched him swim away to the deep green water where I had hooked him.

Not that I'm against enjoying a fish dinner once in a while, but it being one of those August "dog days," it seemed best to let the trout slip back under the midstream log than to steam in the creel all afternoon. I picked up my minnow container from the cold spring that entered the hole, my worm box from the cool shade and walked upstream.

Too many people think that trout fishing after June is the domain of the fly fisherman solely. That is an enjoyable and deadly method of angling, but not the only sporting way to catch trout. The confirmed bait and lure fisherman can score in midsummer as well, but he'll need a change in tactics and techniques. Take a tip from the fly rodders. What do they do as the water warms and becomes glass-clear? They use the finest tippets and smallest flies they have. Spinning rodders can cash in on this secret and fish similar "Light Terminal Tackle."

After we tire of bass fishing, and even the bluegills have moved to deeper water, my fishing buddy, husband Bob, and I often return to our April trout streams to see what's happening on them and if the trout are still there. They invariably are. We've fished a number of the larger Pennsylvania streams in midsummer and caught trout, using the "LTT" method.

Here's our recipe: buy the best monofilament line you can afford, in two-pound-test strength, *or less*, if you can get it. It takes a big trout to weigh over two pounds, and we have bested Erie County lakerun rainbows of more than twenty inches on the wispy line. If you can't find spools of it, buy fly fishing leader material in similar strengths and tie a tippet to your line. We never use more than four pound test for trout, even in early spring.





Light lines give longer casts, but be prepared to tie on lots of hooks. When summer arrives, the largest hooks in our fishing vests are size 12, and we prefer 14s, 16s or even smaller. If a quality hook is purchased in these sizes, it will hold surprisingly large trout. Consider the fly fishermen again and the midges they'll be fishing.

The whole idea is for the line and hook to be invisible, so use no weight, or at most a small splitshot or two where the water is moving too quickly to get the bait down. Crimp these at least eighteen inches from the hook.

You must be "invisible," as well, and fish the "LTT" with a light touch. Follow the fly men again and choose drab-colored clothing, green or brown, or even a camouflage shirt to blend in with the background. Wear out the knees of your hipboots sneaking up on streams, remembering the fish can see you as well as you can them. Cross only in the shallows, stay low and let the bait drift naturally, but casting upstream and keeping line drag to a minimum. I would hate to count the number of times trout have been put down by an unnatural drift.

Minnows are an excellent bait any time of the year and even worms, especially the small ones, will catch fish all season long, but don't forget that in the summer, trout are also eating land insects which fall into the water. As the major mayfly hatches are over, fly rodders now would be fishing Letort Hoppers and crickets, flying ant and beetle imitations, and inchworms. You can use many of these critters live by hooking them lightly and attaching a small, clear plastic bobber to the line to give casting weight.

Don't overlook offbeat baits that are naturals to trout: june bugs, mud bugs (dragonfly larvae), stone fly nymphs, softshell crayfish and hellgrammites, for example. One of the best ways, to fish in the summertime is to find bait once you get to the streamside: under logs, rocks or tree bark. Crayfish and minnows can be cornered in a backwater or kicked from under rocks and scooped with a small-meshed landing net. Minnows can also be caught in the shallows on tiny hooks and pieces of worm. If you take minnows with you, keep them active by chaning the water often or leaving the container in a cold spring or creek while you fish.

Lure fishing in the summer can also bring good results. Again, use the smaller lures, such as 1/32nd ounce on an ultralight rod, and try the darker colors or those with black blades, rather than flashy silver. However, in the clear water, lures may spook more fish than they catch.

More so than at other times of the year, fishing is best in the summer at dawn or dusk, or even after dark. Cloudy, rainy days spell fishing success, as well. However, we had one of our best days in the middle of an August afternoon by being selective as to where we fished: below a cold feeder stream.

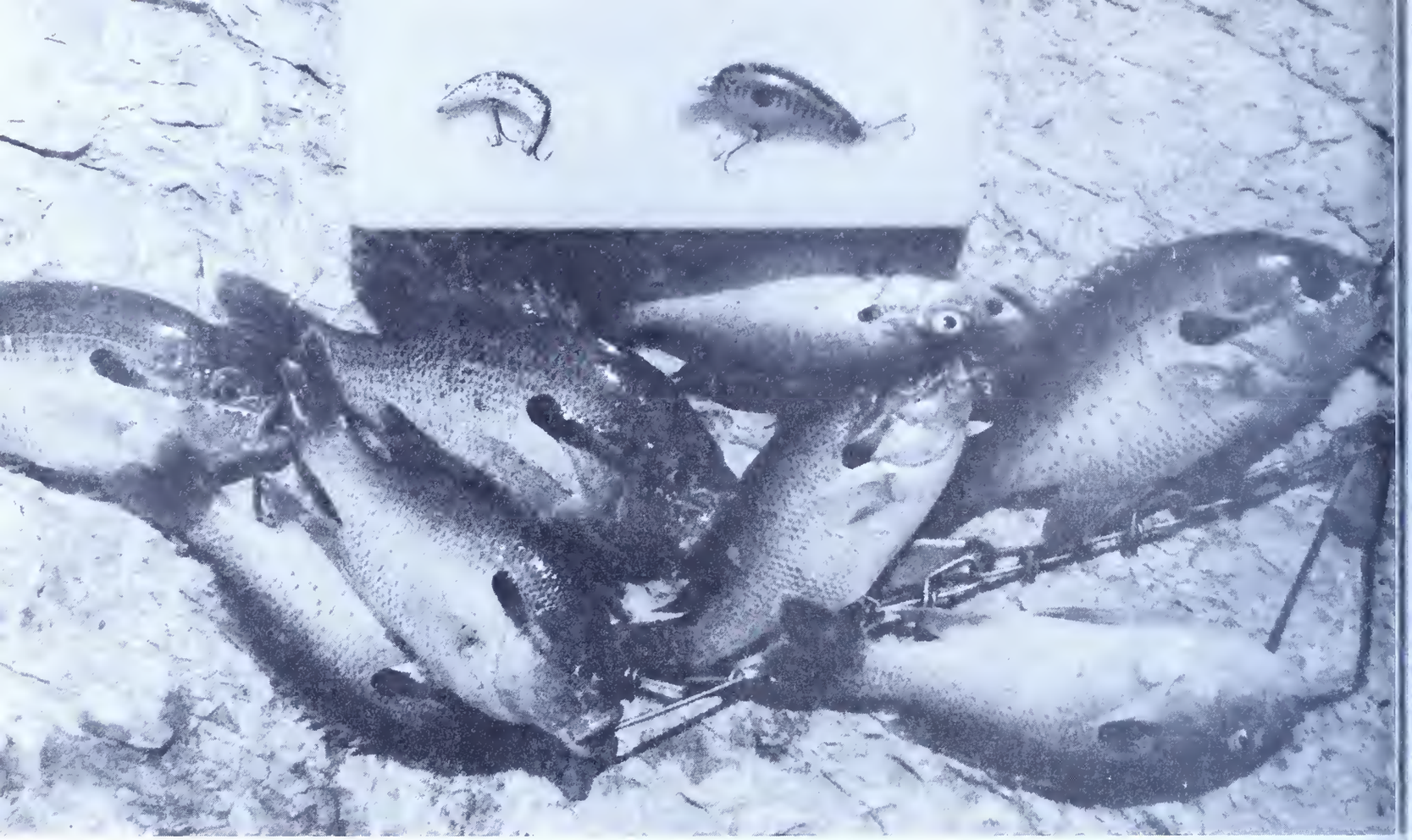
In the summer, trout may be scattered into a few comfortable spots in the stream, and angling luck will have to be made by using LTT and "trout scouting!" Consider the conditions that meet a trout in a July or August stream. The water is very clear, low, and at its warmest. Now consider what a trout asks of life. He needs cool water, less than 70°F, preferably in the 50s or 60s, and he requires more oxygen than most other fishes. The two are related: the cooler the water, the more dissolved oxygen it will be able to retain. A trout may be able to tolerate slightly warmer water than it likes, provided a large amount of dissolved oxygen is present.

Making this work for us, we scout "trouty" places before casting: where a cold stream enters the larger creek, or where an icy spring seeps in. We also fish the prime areas below falls, heavy rapids or riffles that churn the water, dissolving that needed oxygen. The middle of large, slow holes may have held some trout in the springtime, but now with the oxygen grab, unless they are deep enough that the water is dramatically colder on the bottom, they'll be homes to only the warm-water residents of the stream, such as suckers and fallfish. Fish the head of pools where the trout can get oxygen. Remember that baitfish, fishbait and stream insects can be found in the same highly oxygenated areas, especially riffles.

A trout also needs food and cover, but these are generally readily available in a summertime stream with its abundant bug and minnow life, brushy banks, midstream obstructions and overhanging, leafy branches. Trout will be seeking shelter not only from you, but also from predators such as herons, kingfishers and larger fish, so don't neglect to fish pockets under logs, snags, rocks and especially overhanging banks. If you have ever observed an electrofishing survey, you know that trout can hide in the craziest places.

We have fished such streams as the Tionesta and Lehigh, below cold feeders entering the larger creeks, and had good luck. In these cases, wading in tennis shoes, the big creeks felt like bath water, while, just a few feet away, our legs were numbed by the flow from the springs. One summer day on the big Pine Creek, in its lower reaches, we caught a number of trout by fishing the deep pool and side runs below heavy rapids.

On smaller streams, such as the heavily fished Nescopeck Creek in our home county, we have had to sneak downstream through the woods and fish up back, keeping low and using very light line. Normally trout will face into the current, and the approaching bait looked natural to a number of summer-fattened fish. There's really no trick here, except with the initials of a little mind-jogging jargon: for summertime success, fish your "LTT" with "TLC!"



This stringer of redbreast sunfish provided the author with plenty of action. For comparison, lure box is 7" long.

Sunfish are Funfish

by Frank Lucas

I tossed the little jig and spinner combination out into the quiet water at the base of a flooded maple tree and let it flutter slowly downward before beginning a slow steady retrieve. The little jig had hardly moved a foot back toward me when it was taken. Lifting the rod tip sharply to set the hook, I was rewarded by the throbbing tug of a fish. By keeping steady pressure on the fish I pulled it away from the submerged roots and out into open water where it made several circling runs before I lifted a fat redbreast sunfish from the water and snapped him onto my stringer.

Quickly flipping the jig and spinner back into the water at the base of the tree I was immediately hooked up with another scrappy sunfish. When subsequent casts brought no further action I tied on a small brown Fly-Ike and cast back out. As soon as the lure hit the water it was rapped smartly and I had another sunfish on. This one proved to be the last from this spot . . . repeated casts brought no further strikes.

Moving down the stream to an area of submerged limestone ledges I was able to catch two more sunfish before the Fly-Ike was sucked in by a smallmouth bass who immediately headed downstream, peeling off line. By keeping the pressure on I was finally able to slow him down and turn him away from a pile of brush lodged at the lower end of the hole. Immediately swapping directions he took off upstream in another scorching run. The bass and I made several exciting trips up and down the stream before I was able to get him and myself under control and slide him out onto the bank. Sunfish were what I was really after but that bass had just added an exciting bonus to fishing for sunnies. Before the morning was over I landed seven more sunfish and two more bass . . . not a bad trip in my books.

Most of my fishing time is spent in pursuit of the redbreast sunfish and bluegills that inhabit a small limestone creek near my home in Lancaster County. These little fellows can be found actively feeding almost any time of day so I can expect some action no matter when I am able to slip away for a few hours of fishing.

Sunfish of one kind or another are probably the most abundant and common fish found in Pennsylvania waters. They reproduce readily under almost any conditions. A big reason for their abundance might be the fact that hardly anyone fishes for them — purposefully. Most sportsmen seem to prefer the more glamorous trout and bass. This could be a mistake because sunfish can provide some very exciting hours of fishing.

Bluegills and sunfish can be found in most of our warmer streams and

lakes and have been stocked in many of the farm ponds scattered across Pennsylvania. They are normally found close to shore for this is where the weeds are the heaviest and the food they eat is more abundant here. Their choice of natural food is small aquatic organisms, bugs, nymphs, minnows, crustaceans, and almost any other edible thing they can get down. I am always amazed at the size of the crayfish eaten by sunfish. I just don't know how they get them in their mouths, much less swallow them.

The larger sunfish are particularly active and easy to catch during May and June when they are at the peak of their spawning activity. They are busy guarding their nests and will strike at anything that poses a threat to the eggs.

The time-tested method of taking sunfish is with a bobber and worms, or other natural baits, but they can also be taken with a variety of dry flies, wet flies, poppers, or other fly rod type bugs. This is an excellent way to keep that fly rod in action and to pick up valuable casting experience. With the fast action these fish provide you are bound to become a better fly caster in no time at all.

All of these methods will work but I really like to fish for sunnies with plugs — not the large bass plugs, but the tiniest ones I can find. Sunfish *will hit* a bass-sized plug, but it is not very often that one will be hooked. Even the largest sunfish has a very small mouth and can't get the hooks, much less the body, of a conventional sized plug into its mouth. This is the reason for the tiny plugs. They must be scaled down to match the size of the fish if you are going to be successful in taking them with plugs.

Sunfish are pugnacious and will often attack or attempt to attack any lure dropped in front of them, no matter what the size. This temperament makes them ideal quarry for the sportsman who will scale down his tackle to match these scrappy little fish.

The most popular lures I have found are the Mister Twister Teeny Spins (1/16 oz. jig and spinner combinations), Lazy Ike Corporation's Fly-Ike, Rebel's Trout Minnow (1½ inch long), and small diving plugs I make myself. These lures all carry small hooks, usually size 10 or smaller, and are the right size for sunfish to tackle. Not only are they good sunfish lures but they are equally effective on large and smallmouth bass. Trout won't hesitate to hit them either.

Color doesn't seem to be as important as it is for other species of fish, but I do like colors that approximate the hue of crayfish and minnows: browns, silver and orange.

These tiny lures require specialized equipment to be cast well. For my purposes, I use an ultralight spinning outfit loaded with six-pound-test line. Four-pound-test mono would probably be a better choice, but I like the stronger line in case I latch onto a bass. I have also had my slow-moving lures vacuumed up by large carp on more than one occasion and the heavier line gives me a better chance at landing them. Anything over six pound test would probably be too heavy as these small lures are very light and don't have enough weight to effectively pull heavier line off the reel spool. Keep the drag set light so that when a bass does come roaring out from his streamside hideaway to suck in your lure he won't break the line and escape.



Redbreast sunfish shown here is about six inches long — about the "outside" limit in the creek the author likes to fish.

Sunfish have tough mouths, make sure your hooks are sharp. The small hooks on these lures are difficult to sharpen and dull quickly from contact with rocks and other obstructions. I carry a small hook file with me at all times and often take a few minutes to sharpen the hooks on a lure before trying a new spot.

No matter what lure you are using, make sure you use it slowly. Sunfish won't come roaring after a lure like a bass. Slow down your rate of retrieve — a fast retrieve will get you nothing but exercise. A slow steady retrieve also allows your lure to perform as intended.

When using a floating plug I like to throw it into a likely looking spot and let it sit quietly on the surface for a few seconds before twitching it gently several times. If these soft twitches don't bring a hit I begin a slow retrieve. Many times a sunnie will hit a lure the moment it lands in the water and the next time will follow it all the way back and hit just as the lure is lifted from the water. Concentrate on the lure at all times — you never know when a sunfish is going to "jump on it."

The limit on sunfish is liberal and you don't have to worry about harming the fishing by "catching too many." In Nature's scheme of things, the sunfish is meant to be the source of food for bass, trout, and other large gamefish, but when they overpopulate a body of water they become serious competitors for living space, and prey heavily upon gamefish eggs and fry. In many lakes, especially farm ponds, it seems like everyone wants to catch the more popular bass and no one wants to catch the sunfish. Under these conditions it doesn't take long for the pond to become unbalanced and overrun with sunfish. The final result is small stunted sunfish and no bass; so, when you catch sunfish don't return them to the water. By taking them home you help the fishing.

Whatever you do don't throw them away — they are much too good for that kind of treatment. Instead, take them home, fillet them, roll them in flour, fry them in some butter and you've got a meal that's truly delicious.

My wife prefers the eating quality of sunfish over any of the fish I bring home. In fact she likes them so well that instead of complaining about being a "fishing widow" she encourages me to go. When she says "Why don't you go catch some sunnies?" I don't hesitate, I'm gone!



If their trailer has been properly maintained, these Lake Wallenpaupack boaters will have a safe trip home.

A Boat Trailering Primer

by Virgil Chambers

Boating Education Specialist

photos: J. F. Yoder

Of the approximately 170,000 registered boats in Pennsylvania, over 95% are trailerable. An interesting point is that many of these boats spend more time on their trailers than they do in the water. To protect your investment, and enhance safety on land, as well as on the water, the boater should become knowledgeable about his boat trailer and trailering. It is important to know how to maintain the trailer, if it is of the right size, correctly built, and properly fitted to the boat that it carries.

A boat trailer serves two primary functions. First, it transports the boat to and from the launch site; and second, it provides a storage cradle for the boat when it is not in use. For safety on the highway and prevention of damage to the hull, proper trailer selection is extremely important.

The boat trailer should have an adequate weight carrying capacity to handle boat, motor, and all the extra gear that will be carried in it. A trailer's weight carrying capacity is stamped on a metal plate, usually located on the tongue.

Also, the trailer must be long enough so that the hull will rest securely on the aftermost supports. Any overhang in the transom area can cause damage to the hull. A good trailer duplicates as much as possible the support given to the boat in the water. Pads or rollers should be of sufficient number and properly adjusted so as to provide maximum support. Not enough support may cause the keel to break or the hull to "hook" or warp.

For safety, both to protect a valuable investment and to insure a safe trip on the highways, proper equipment is as important as the initial selection of the trailer.

HITCHES: The drawbar for a weight-carrying trailer hitch should be mounted to the frame of the towing vehicle. Bumper hitches are not recommended. However, they can be

used for very light trailers. For heavier loads, a drawbar of the weight-distributing, or "equalizer" type, should be used to distribute the weight throughout the frame of the towing vehicle.

Another very important factor is proper maintenance of the boat trailer. This is essential to highway safety, not to mention the inconvenience of breaking down along the road.

Tires should be checked regularly for proper inflation, wear, and the casings inspected for cuts or imbedded objects caught in the treads. Wheel bearings should be greased at least once a year, more often if they are submerged when launching.

Lights should be checked at the start of every trip to make sure they are operating correctly. Waterproof lamp housings should be used if the lights are submerged when launching. In fact it's a good idea to uncouple the wires while launching.

Always carry a properly inflated spare tire. Make sure you have the proper jack and lug wrench — many times standard automotive equipment will not accommodate your boat trailer. Carry an extra wheel bearing set and a container of grease. Most service stations do not carry these parts and a breakdown can spoil an entire outing. Extra bulbs are also a good idea, along with spare fuses for the towing vehicle; and, don't forget a well-equipped tool kit.

Extra wide mirrors may be required if the boat being towed is high or wide. A right side external mirror is required by law if normal vision from the rear-view mirror is obscured by the rig under tow.

Boat launching is a two-man operation, requiring one person to guide the drive and handle the boat on the ramp. A launching ramp is no place to learn how to back your trailer. If you're new to trailer-boating, practice backing your rig in your driveway, on a quiet street, or in an empty parking lot.

At the launch site, be as courteous and efficient as possible so as not to delay others. Have all gear stowed on board the boat before approaching the ramp. Remove cover, secure your lines, have fenders in place if necessary, and remove all tie-downs except for the bow winch. Don't forget the drain plug.

BALL COUPLER: Make sure that the ball coupler is of the proper size to match the coupler on the trailer tongue. A ball too small for the coupler could cause the trailer to break loose from the towing vehicle resulting in a serious accident. The ball stem should be fit tightly in the hole on the drawbar and be secured with lock washers.

TIRES: Tires should be of sufficient size and load bearing capacity to handle the anticipated weight. Generally, the larger the tire size, the better the towing characteristics. Small tires turn faster, resulting in excess wear and more stress on wheel bearings. A larger tire provides a better ride on uneven roads.

SAFETY CHAINS: Pennsylvania Law requires that a trailer be equipped with two safety chains, attached to the towing vehicle in a crisscross or "X" pattern. Safety chains should be adjusted so that they do not drag on the ground, but with enough slack so that the trailer may be turned without overtightening.

LIGHTS: The law requires that all trailers be equipped with the same lighting system required on the rear of the towing vehicle and that all lights operate in conjunction with the lights on the vehicle (tail lights, stop lights, and brake lights). Two red reflectors are required on the rear of the trailer, in addition to a white license plate lamp. Combination lights may be used.

BRAKES: The law requires an independent trailer braking system when the trailer exceeds 3,000 pounds or 40% of the weight of the towing vehicle. There are three types of trailer braking systems currently in use: hydraulic, electric, and surge. Surge brakes are the most common found on trailers of medium capacity and operate automatically as the vehicle slows.

TIE-DOWNS: When trailering, the boat should have a sufficient number of tie-downs to securely hold the boat from bouncing on the rollers or pads. A tie-down line in addition to the winch cable should be secured thru the bow eye, with two tie-downs securing the transom. Depending on the size of the craft, additional straps may be required across the beam of the boat and secured to the frame.

Pre-check the launch site before backing down. Check the degree of slope, water depth, and the surface of the ramp to be sure you will have sufficient traction. If others are ahead of you at the ramp, observe several launchings to better judge how your rig will handle.

Don't back down any farther than necessary to launch your boat, set the handbrake and block the wheel of the vehicle. Have your guide hold onto the painter (lead line) from the bow when sliding the boat into the water. Remember, the more proficient you become at trailering, the more time you have to enjoy boating.

TRAILER REGISTRATION

Fees for trailers under 3,000 pounds gross weight, the registration fee is $6.00.

Over 3,000 pounds gross weight, the fee is $25.00. Registration with license plates may be obtained from:

Department of Transportation
Motor License Division
Harrisburg, PA

Certificate of title: May be obtained for a fee of $2.00 by applying for Form RVT-42 from the Bureau of Motor License.

Temporary registration license plates may be obtained from a dealer, at time of purchase.

At the launch site, be as courteous and efficient as possible so as not to delay others. The ramp is no place to "visit" while others wait in line.



BOOZE AND BOATS

by Jeffee Palmer

THE SOBER FACTS ABOUT ALCOHOL AND BOATING



A man and two friends were fishing from a boat. They got ready to move to another spot, but forgot to pull the anchor. When the driver cranked the motor and tried to go forward, the anchor held, spinning the boat in a circle and tossing all three overboard. The men could not get back aboard. They had been drinking.

Two brothers were fishing the spillway area of a dam. The wind was cold, and they had been drinking to ward off the chill. Suddenly one man fell into the cold water. Trying to help him out, his brother also fell in. Both men were swept away and drowned.

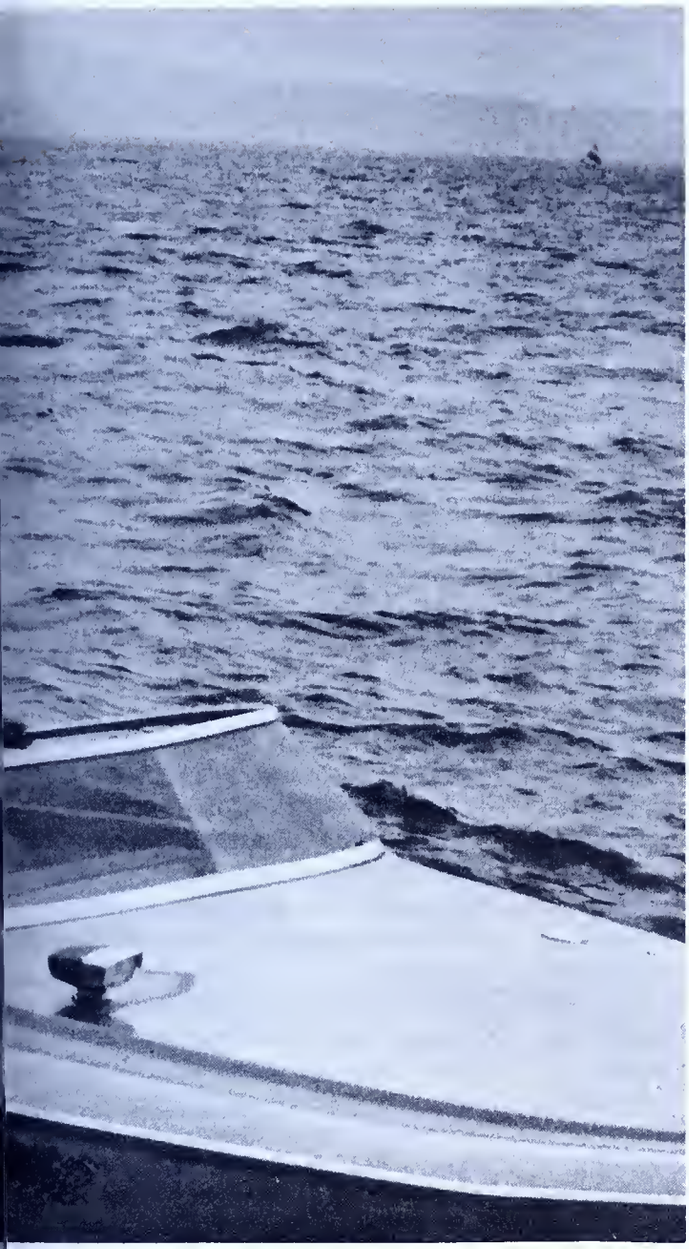
Research indicates that overuse or indiscriminate use of alcohol is a factor in about 60 percent of the fatalities related to water recreation.

There are several reasons why people involved in water safety are reluctant to denounce the use of alcohol. One is the embarrassment — the use of alcohol is common, and anyone strongly criticizing drinking could appear hypocritical. Also, even though social drinking is widespread in the United States, many studies and objective looks at the subject are not objective at all. They are clouded in controversy, and not readily accepted by authorities in the field.

Every year many drownings occur which could have been avoided; had the victim been sober, he probably could have coped with the situation. A graphic example is the young, healthy man who worked in a water show, yet drowned in a swimming pool at a party. He had been drinking.

Another contributing factor is that drinking is an accepted leisure activity, especially in outdoor recreation when the sun is hot. However, refreshing as it may seem, alcohol reduces control, judgment and coordination and can impair perception and reflexes. The age-old remedies for intoxication — black coffee, cold showers, fresh air, exercise or a fast dip in the water — will not sober anyone; all you have is a wide-awake drunk, or a drowned one.

The alcohol used in various kinds of drinks is ethyl alcohol and, unlike many liquids consumed by man, it has no nutritional value. Contrary to popular belief, roughly the same amount of alcohol is contained in an average highball or mixed drink (one ounce of hard liquor) as in a can of beer (12 ounces) or the average glass of wine (four ounces). You don't get drunk any faster or slower from drinking or mixing any of the above to the



exclusion of any others. It is the quantity of alcohol that enters the bloodstream in a short period of time that determines whether a person is drunk.

Alcohol does not follow normal digestive patterns. Instead it is absorbed directly into the bloodstream through the walls of the stomach and small intestine. It then is retained in the various organs in proportion to the amount of water they contain. Because the brain has a high concentration of blood (which is 90 percent water), the effect of alcohol on the central nervous system is apparent very soon — usually within minutes. And while alcohol is absorbed rapidly into the system, it takes time before it leaves the body and the brain.

Once alcohol is in the bloodstream, it must be broken down by the liver and oxidized — turned into water and carbon dioxide. The liver can convert less than one-half ounce of alcohol per hour into these harmless chemicals. Since the body absorbs alcohol much faster than the liver can oxidize it, the cumulative effect of consuming alcohol rapidly can produce intoxication in a short time.

Alcohol is metabolized at a steady rate no matter how much has been consumed, so a person who drinks heavily at night still can have enough unoxidized alcohol in his blood to be intoxicated the next morning. Boaters have fallen overboard and drowned the morning after a big drinking bout.

Most people killed in boating accidents fall out of boats for one reason or another. Since balance is one of the first things impaired by even one mixed drink, can of beer or glass of wine, alcohol consumption may be responsible for many of these falls.

Alcohol also affects coordination. Research into drownings tends to indicate an inebriated person can't swim, regardless of his ability when sober. And more importantly, a confused and tipsy person in dark water often swims down rather than up to safety.

Some 85 to 90 percent of the information we receive about our environment comes through our eyes. The muscle relaxation induced by alcohol reduces control over light entering the eye, distorts eye focus, reduces visual acuity, causes double vision, affect the ability to judge distance reduces peripheral vision, night vision and the ability to distinguish color. Unfortunately, the colors affected first are red and green, colors used for safety lights on the water. Most collisions at night contain accounts by all involved that "we had our lights on, but the others didn't."

We see through a process involving numerous eye fixations every second. These pictures of our environment are edited by our brain and put together to form a continuous image of our surroundings. The relaxing effect of alcohol over the general body musculature particularly affects the delicate control of the fine muscles which move and focus our eyes. When the brain receives a fuzzy picture, it cannot make the proper response.

In the average person, a couple of drinks reduces eye fixations by as much as one-half. Add the tunnel vision effect induced by glare from the water and vibrations of the boat and you have effectively put blinders on the drinking boat driver.

Too frequently the social drinker takes risks in a boat which would horrify him if he were sober.

When a person drinks, reaction time is slowed, coordination and speech may be impaired and overconfidence often takes over. On the water, this combination creates a dangerous situation from which escape may be impossible.

Editor's Note: The article on these pages appeared in Texas Parks & Wildlife Magazine and is reprinted here with permission from (and our special thanks to) the Texas Parks and Wildlife Department. Ms. Jeffee Palmer is a member of the Information and Education Staff.



Above: a sampling of the author's woodchuck flies. Left to right: "All Purpose," "Caddis," "Flymph," & "Nymph"

The Incredible Woodchuck Flies

by Clayton L. Peters

It seems that every few years someone comes up with a new fly pattern that is supposed to be a panacea for all the troubles involved in selecting the right fly at a crucial moment.

It is frustrating to have trout rising all around you and snub all your artificial patterns, so the search goes on and on for the one fly the trout will take under a variety of conditions. At times, several specific hatches will be in progress simultaneously, adding to the frustration of selecting the one the trout prefer. This sometimes happens when the March Brown and the Gray Fox hatches meet head-on. Other flies of the Stenonema group may also be prevalent at the same time. These flies are easy to identify because of the darker joint markings on the legs.

My friend Chauncy Lively suspects that I am an innovator and I suppose his suspicions are justified because I have tried all sorts of material conceivable in an effort to pattern a fly that would cover a variety of hatches and situations.

One day in Brady's sport shop in Millersburg I was told that they had taken over seventy woodchucks from a pasture near Waterville, Pa. They said these ranged in color from gray to almost black. I asked them to save me a pelt and they complied with several of varying coloration. The young chucks have lighter colored hair and a finer texture; the older ones are decidedly darker.

A closer look at the fur from a mature woodchuck reveals a variety of colors. The base of the hair is almost black, followed up by a wider strip of cream, shading off to tan, and then another band of black, followed by gray tips. . . the colors for most midseason hatches of flies.

It is quite a task to flesh out the hides due to excess fat, but the effort is well worth it. The hair is also oily, which enhances its value as dry fly material.

From patterns of flies taken in May, June and July, I worked to produce the one fly for all occasions during that period. Among the sample flies collected were Hendricksons, Red Quills, March Browns, Gray Fox and Light Cahills.

I wish I could say that the legs are also tied in most cases with the woodchuck material, but such is not the case for very obvious reasons. Various shades of the variant hackles



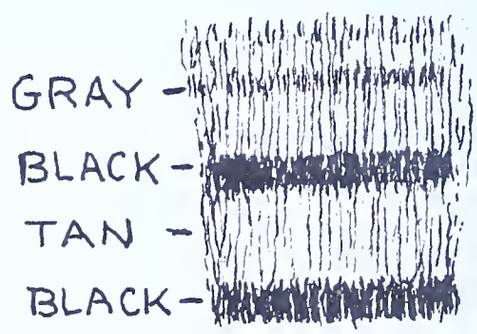
WOODCHUCK NYMPH



PAUL YOUNG'S STRAWMAN



ALL SEASON DRY FLY



SECTION OF WOODCHUCK HAIR

CP

are wonderful for duplicating the dark joint markings on the legs of Stenonema flies that hatch during the major part of the fishing season.

Admittedly, woodchuck hair is a bit difficult to spin onto the thread, but with the new liquid wax now available at most tackle shops it is greatly simplified and not messy. The first method described for dubbing the body was devised by Wayne Leonard, of Harrisburg, and is excellent for making the rough textured bodies. The second method shown I tumbled onto myself, out of necessity, to make tightly twisted bodies. Both methods can be used to good advantage.

In method number one, a loop of the tying thread is formed and the fur placed between the two strands of the loop. The hackle pliers are then attached and spun to form a hair chenille. Method number two is simply spinning the fur onto the waxed thread and the thread then doubled back over the hook and brought to the front. With the hackle pliers, spin the two strands of thread with the dubbing, *tightly*, to form a compact strand. Nicely tapered bodies can be made by this method. A word of caution, don't use too much fur — the thinner the body the more natural it looks. Dark olive or gray thread works out well for the darker bodies and pale cream or amber for the lighter shades.

The use of woodchuck hair is by no means confined to tying dry flies. Nymphs, flymphs, caddis and even Paul Young's version of the cased caddis he called the "Strawman Nymph" may be fashioned from it. However, due to the oily nature of the hair it is advisable to wrap a core of lead wire on the hook to facilitate sinking of the nymphs. I have tied several versions of a stone fly nymph with woodchuck hair — but they are still in an experimental stage and I would hesitate to suggest them until they have proven to be successful.

In the preparation of woodchuck hair, I find it easy to handle by cutting two-inch wide strips from the hide and then cutting out the sections of cream, tan or black as needed. A blender is handy for mixing this as well as other furs but it can be hand blended very nicely with a bit of patience.

The tips of the hairs make excellent wings for dry flies or may be tied back and spread to form a canopy for caddis wings. It can also be clipped to form a wing pod for nymphs, or spun around the hook in a collar for the flymph.

I have also experimented with bleaching and dying this material. For this process it is necessary to thoroughly remove the oil by washing with detergent or lava soap. If properly cleansed it bleaches out to a beautiful cream color. The method of bleaching, described by George Harvey in his little manual, "*Fly Tying and Trout Fishing*" distributed by the Pennsylvania Fish Commission works well.

In the drawings, Fig. 1 shows the method of placing the clipped hair between the two strands of the loop. Transfer the end of the loop to the hackle pliers and spin to form a hair chenille Fig. 1a shows the spun fur ready to wrap on the hook. Fig. 1b is the completed body and Fig. 1c shows the completed fly.

In Fig. 2, the fur is spun on a single strand of thread, then an equal length of thread is taken back over the hook and wound to the wing position. The fur and silk is then spun real tight and wound to the wing position. Fig. 2a, the finished dry fly. Note that the body is thinner than by the former method. Fig. 2b shows the wings tied back over the body to imitate the caddis and Fig. 2c depicts what Vernon Hidy calls the "flymph." It imitates a nymph rising to the surface

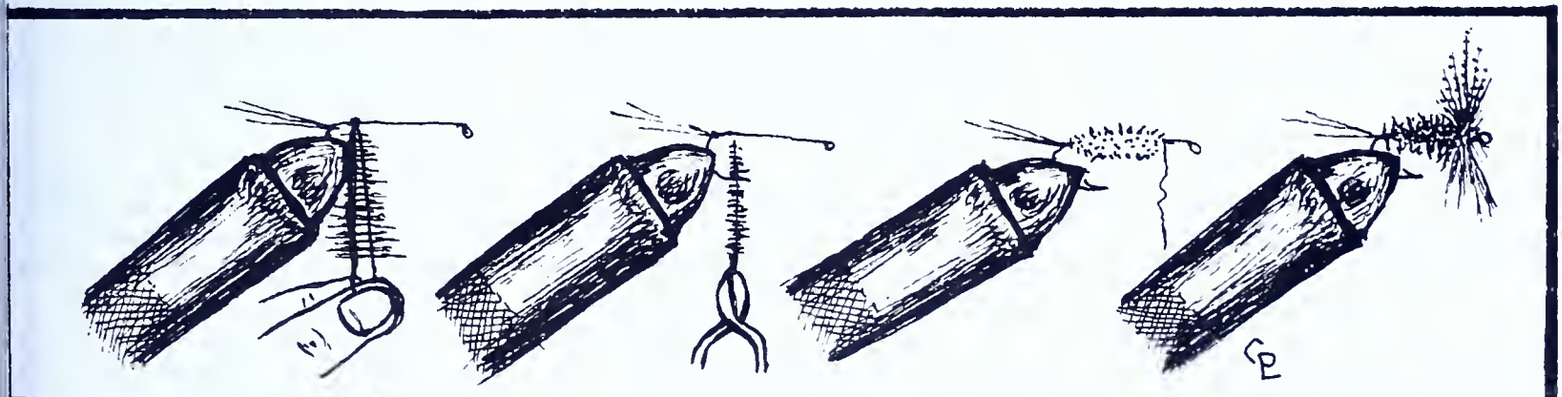


FIG. 1 1a. 1b. 1c.

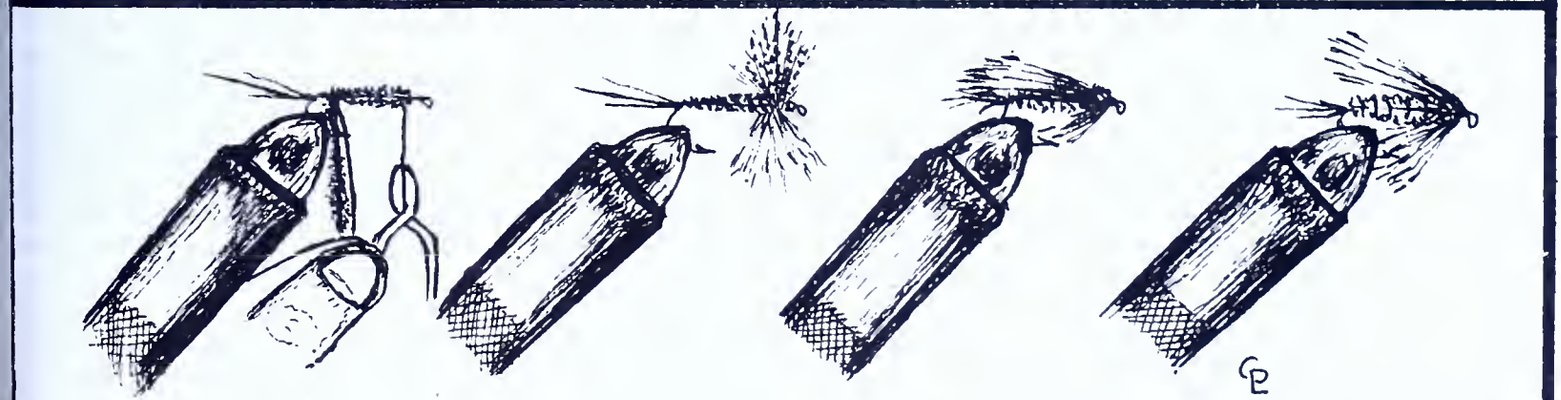


FIG. 2 2a. 2b. 2c.

to transform into the dun stage of a mayfly.

Referring back to Fig. 2, the all-season dry fly is made of woodchuck excepting the hackles. It is dressed as follows:

Tail—Stiff hair from woodchuck tail.

Body—Tan and a bit of black body fur.

Wings—Gray tip guard hairs.

Hackle—Brown variant or one cream and one brown hackle mixed.

The hair from the chuck's tail is ideal for the tails of both dry flies and nymphs. It too may be bleached and used for the tails of the light colored mid season flies. It is stiff enough to support the weight of flies as large as Number 10.

Woodchucks vary in color as they grow older. Young chucks are very light in color and make good dubbing for the Hare's Ear fly. The many uses of chuck hair seems endless.

I fished the all-season dry fly consistently on all our southcentral streams during the past several seasons with excellent results. It was often accepted by trout after they had turned down my best imitations of a given hatch. On Penn's Creek it is an exceptionally outstanding fly — all season.

While writing this, I have devised a stone fly nymph that looks good to me. If the trout feel likewise and it proves successful I'll pass it on to you at a later date. One thing is for sure: trout love stone flies — especially in their nymph form.

By far, the use of woodchuck to date has been for the tails and hair wings of dry flies. Most fly tiers whom I have spoken to use only the guard hair and discard and remainder. This seems like an awful waste of material, since, with a bit of patience, all the fur is not only usable but is desirable to obtain a



CADDIS LARVA

rough texture not obtainable with the use of fine, soft, easily spun furs.

It appears to me that the course nature of the fur is the one reason it is more acceptable to trout. It does disturb the water more and probably picks up tiny air bubbles in doing so. Speaking of trapped air on fly bodies, I was sold on, and tried, several different versions of caddis larva made of latex. I had very little success with them, but later I tied some of woodchuck and caught trout on them.

For years I tied imitative patterns of flies in an effort to get as close to the natural as possible, but, after much experimentation, I am convinced that light gathering and other qualities are more important than strict imitation. I am now convinced that woodchuck provides these desirable qualities. The emerging caddis, especially the Grannom fly tied with brownish black body, dark gray immature wings and short black ostrich fibres tied in at the head is far superior to the latex type.

Some of the woodchuck patterns do not even remotely resemble the fly they are intended to imitate but they are acceptable to the trout.

Try this pattern and I'm sure you will find it rewarding. Far back on the bend of the hook form a loop and insert black woodchuck hair between the two strands of thread. Twist it to form a hair chenille and wrap up to a point behind the eye. Trim to shape and add the immature wings; then, tie in the black ostrich head. It doesn't look like a fancy dan, but it has qualities that attract trout far better than latex.

It does require practice to tie in woodchuck material; but, once mastered, it will pay big dividends. And don't discard those tails of mature woodchucks. They make excellent tails for many mayflies and especially the big Green Drake Dun.

Eels by the Ton . . .

(continued from page 9.)

The female is no slouch at producing eggs — something like 10 million!

Those eggs hatch into extremely tiny fish. They look like glass but have an appetite that would, size for size, make a horse take a back seat.

A great percentage of the eggs and the baby fish are consumed by predators. When the little fish reaches a length of about two inches it is called an elver. It then seems to decide there are better places to live than the Sargasso and it heads for the "homeland."

Elvers are little devils. It takes about 4,000 to tilt the scales at one pound. But those great appetites make up for that. Most eels caught in the Susquehanna Valley ranged around two or three pounds; some, up to nine pounds.

Males become "silver-eels" — mature and ready for the long trip at from four to six years. With females it is seven or eight years. All get a more silvery appearance than when immature, say the old-timers.

Eels are known to have been caught in the Susquehanna since before the Revolution. Homemade nets were then used.

The history of eels dates back to antiquity. Ancient Greeks believed there was no sex angle to the eel's life because they could find no eggs or sex organs. They decided that Jupiter created each one individually. Aristotle also studied eels. He came up with the explanation they were generated spontaneously in the "entrails of the earth."

Down in South Carolina a successful businessman feels there is a tremendous future for eels, and he is entering that business. He has large fiberglass tanks in which the elvers he buys are placed. After partial growth they are placed in two aerated ponds of a half-acre each.

The man, J. Phillip Booth III, of Sumter, says the world has an eel market of $300 million per year, and that there is a shortage of 75,000 tons per year.

It seems that Japan and China provide tremendous markets for eels with Italy also a heavy buyer.

He imports the elvers for his operation and also imports the feed he uses from the Orient.

Booth's optimism as to the future of eel "farming" seems justified. More power to him, but it is a far cry from the days before big dams wrecked the eel activity, when Mother Nature provided a harvest of tons of eels per night for those hardy men who built and maintained the eel walls of the Susquehanna Valley.

Make that small boat LARGER —
by Gary Diamond



After many years of searching, I thought I had found the perfect small boat that would go anywhere and do anything I wanted it to. However, upon loading aboard all the equipment and accessories, there was barely enough room for me to stand, let alone move safely to the other end of the craft. At this point I decided that most of the space used was underutilized and modifications were in order.

The overall dimensions of the boat are 12 by 5 feet, with a depth of 28 inches at the centerline. Like most fishermen, I always take more fishing rods than I need (just in case of an unexpected mishap), therefore rod storage is a must. Your primary rod should be stored in a vertical holder that is mounted out of the way, but close by for fast action if needed. Vertical rod holders can be purchased at most sporting goods stores for as little as five dollars a pair, with mounting instructions included. The best ones are made of PVC plastic pipe and bolt directly to the hull, making them secure and corrosion proof. They should be mounted at both ends of the craft so your fishing partner has one for his rod. Mount them on opposite sides of the boat if you intend to use them for trolling, keeping the lines as far apart as possible.

The spare rods should be secured on the side of the craft in a hortizontal position, out of the way. The tip of the rod is probably the most vulnerable item in any boat, and breakage can be prevented by using a piece of PVC pipe for the front end of your horizontal rod holders. This protects them from little mishaps like flopping fish or swinging anchors.

Construction of aluminum boats requires the use of athwartships bracing to provide extra strength and reduce flexing. Unfortunately, these braces are easy to trip over when standing or moving about. If you are the owner of a flat-bottomed johnboat, you can cover the bracing with a sheet of marine plywood and paint it with nonskid deck coating. If you prefer something a little more fancy, astro turf looks good and wears well without a lot of maintenance.

A V-bottom craft makes the job a little more difficult, because you must first construct a frame assembly that fits the bottom contour of the hull. After the frame is in place, you can then install the decking and cover it the same as the flat bottom.

Every fishing trip usually involves the use of a cooler chest that is large enough to sleep in and the problem arises of where to put the darned thing. The ideal location is in the center of the boat, but that seat that no one uses is in the way. You now have two options, the first is to remove the center seat, but you can only do this if it is not part of the supporting structure of the craft. If it is, you must install additional athwartship bracing to take the place of the lost support or the boat will flex and possibly break in half. The second option is to convert the seat into a cooler by constructing a waterproof, insulated box that will replace the center seat. Styrofoam blocks can be used for the insulating material and provide extra flotation.

There are several ways to determine whether you can safely remove the center seat from your boat. Heavy guage aluminum johnboats with more than two keels and lateral side supports usually do not use the seat for structural integrity, but most V-bottom craft need the added support to prevent side flexing. Boats with heavy guage gunwales made of channel aluminum seem to be uneffected by removal of the seat as long as one or more additional athwartships braces are installed in its place. The only sure way to determine whether or not the removal can be done safely is to contact the manufacturer or your local dealer and ask him.

Bench seats in the stern of the boat are completely underutilized and take up a lot of space. Instead of using the conventional six-gallon gas tank, a flat 12-gallon tank will usually fit right under the seat, conserving space and increasing the range of your craft considerably. If you fish in larger bodies of water, and use a single motor, a breakdown can be a real problem. An automotive or marine Citizens Band Radio will fit on a slide-on bracket under the seat. This can be used for communications with other boats and provide fishing and weather information if it is equipped with a weather band. It will also allow you to make an emergency call to the U.S. Coast Guard or other rescue squads who monitor Channel 9 for distress calls 24 hours a day.

Last , everyone I know takes along a tackle box that you could mount an outboard motor on and use for a boat. A simple solution to this problem is to build a tackle box with large compartment drawers that is mounted in the rear bench seat (option #2 for this seat). Your anchor and ropes can be stored under the foredeck in the bow of the boat.

If you own a small boat and want to utilize every inch of space, take a good look at it while all your gear is on board. You'll be surprised just how much room you can gain with a few simple modifications.



SERIOUS MATTER!

While on patrol one warm and windy Saturday during the month of March, I observed a small boat being capsized by a sudden gust of wind. The two occupants (a man and his 12-year-old son) began the 20-yard swim to the shoreline.

Personal flotation devices were not worn, and the man had to hold a PFD in one hand while clutching his son with his free arm. It took about four minutes for the pair to reach the shoreline. Because of the loss of body heat to the cold water, both individuals were so weak and exhausted that they had to have assistance in climbing out of the water. If the boat had capsized much farther from the shoreline, I do not believe that they would have been able to swim to shore. After obtaining warm shelter and dry clothes, I explained hypothermia (loss of body heat due to a dunking in cold water) to the man and his wife. The wife then stated that her husband should have known better since he was a 4-year veteran of the US Navy. The man left the lake that day assuring me that he had learned his lesson concerning the dangers of small boats and cold water.

Stan Plevyak
Waterways Patrolman
N/Bucks County

WOULDN'T IT BE GREAT IF —

All boaters operated their boats in a careful and prudent manner, had all boats registered, and validation stickers properly displayed?

Boaters had all numbers properly displayed and legible, and kept their registration certificate on board?

Every boat had the proper number and types of PFD's and displayed the proper lights between sunset and sunrise?

Operators showed some respect for other boaters, and skiers kept their proper distance from shore and anchored boats?

All skiers would *wear* a CG-approved PFD, and all boats would have a competent observer on board when towing a skier . . . and would be operated in a counter-clockwise direction where possible.

Boaters would not exceed the slow, minimum height swell speed within 100 feet of shoreline, floats, docks, launching ramps, swimmers or downed skiers, anchored, moored, or drifting boats . . . and wouldn't overload boats with cargo or passengers?

Parents kept their children near shore, rather than letting them swim or float on rafts, or whatever, all over the lakes during the busiest part of the day?

Wouldn't it be just super, if boaters did abide by our safety regulations and the summer of '79 went into the records as the year Pennsylvania had ***the safest boating season ever?***

Stephen A. Shabbick
Waterways Patrolman
Wyoming County

CLOSE ENOUGH!

Two deputy waterways patrolmen, who shall remain unnamed, were on boat patrol on Raystown Lake one warm summer evening. They observed a canoe floating at the upper end of a quiet cove with no occupants on board. Moving in for a closer look they saw the heads of two lovely maidens peeking around the bow of the canoe. Thinking there might be something wrong, one of the deputies shouted to the individuals and asked if they needed help.

"Don't come any closer!" one of the voices replied.

It was only then that the two "alert" deputies realized that the ancient sport of skinny-dipping was alive and well.

James T. Valentine
Waterways Patrolman
Huntingdon County

BOTHERSOME BUOYS!

The agency responsible for navigation on the Delaware River placed two buoys marking a shallow shoal on the river in the Point Pleasant area. The buoys are to remind boaters of that hazard during periods of low river flow.

Recently, I received a call from a woman who owns river frontage (and has a dock) at the site of one of the buoys. She requested that the buoys be removed. She explained that her family and friends like to water-ski, and the buoys present a *"HAZARD"* to the skiers. Sometimes I wonder!

Stan Plevyak
Waterways Patrolman
N/Bucks County

TOUGH JOB!

For the third year in a row a small group of hearty sportsmen have teamed up with the Whitewater Challengers, a river whitewater rafting enterprise, to stock inaccessible stretches of the Lehigh River. This one day's effort each year makes fishing excellent year-round in these areas for the sportsman who is "after the experience," as well as the fish. All three of the days have been absolutely miserable for this project. The sportsmen are members of the Flint Hill Conservation Club, some of my deputies and their friends, and local trout devoutees. Thanks for a tough job well done fellows.

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

BY LAND OR "SEA". . . STILL VANDALS!

While talking with Leroy Gibbons, a landowner along the Lackawaxen River, he related a story to me that happened to him one weekend. He was cutting up some trees next to the river and observed two males and one female person floating down the river in a canoe. They waved to him and he returned the wave, and then continued to cut up the trees.

Mr. Gibbons has constructed a swinging bridge over the Lackawaxen and it takes a lot of maintenance to keep it in condition. He looked down and observed all three persons on the bridge, with the female in the middle. As he watched, these three persons got the bridge swinging and by jumping up and down on the bridge, they got the female so that she was going about three feet in the air. At this time, Mr. Gibbons called to the people, and they said something back to him; so, he started down toward them. They jumped into their canoe and left the area. Mr. Gibbons said that a lot of the time the fisherman is blamed for destruction done to private property but these people would have done damage to the bridge, had they continued, and they were *not fishermen.*

Joseph E. Bartley
Waterways Patrolman
Pike County

SAME THING?

Sometimes you cannot enforce the Pennsylvania Boat Law *as written.* The equipment requirements state you must have one Coast Guard-approved Type I, II, III PFD's for each person on board a Class I vessel and, in addition, one Class IV throwable. I stopped three Class I vessels on the Allegheny Reservoir and during a board-

ing inspection I found no Coast Guard-approved PFD's on any of the three boats, but I wished them well and sent them on their merry way. These boats were from Ontario, Canada and their PFD's are "Department of Transport-approved."

Paul R. Sowers
Waterways Patrolman
Warren County

ELK COUNTY FUN SPOT —

From observations my deputies and I have been making, we find that approximately 80% of our boaters are fishermen . . . or should we say that 80% of the fishermen are boaters? Our observations are made at the East Branch Lake in Elk County.

To the nonpowered boaters — those using rubber rafts, canoes, kayaks, and rowboats — my hat is off for the high percentage of them who are abiding by the boat laws and carrying PFD's. We continue to check these craft and find most of them in compliance.

The U.S. Corps of Engineers at the East Branch Lake deserve a "pat on the back" for their continuing efforts in providing better angling, boating, and camping at the lake. Special thanks go to Clyde Braun, Lake Manager, and his supervisor, Jack Ewers, for their great efforts.

Bernie Ambrose
Waterways Patrolman
Elk County

"SLIP, SLIDIN' ALONG"

Most people traditionally think of "boating" as a runabout with an outboard engine attached ripping across a sparkling lake at sunset. In Pennsylvania, on our large rivers this tradition is slowly being put aside. Canoes, kayaks, and rubber rafts are fast becoming the most-seen craft. It is not unusual to have *better than a thousand persons* using the Lehigh River's "whitewater" *on one day*. Hopefully, this mass usage will bring about enough concern that clean up efforts on our major rivers will be accelerated.

What is it about the thrill of whitewater that attracts so many people to our major fast-falling rivers each year — despite adverse weather conditions, long drives, and limited facilities? I had it explained to me this way: riding down the river in a large rubber raft is like riding a roller coaster at an amusement park . . . if at the bottom of each "dip" someone would hit you in the face with a bucket of water. Now that is fun!

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

"FOG-BOGGED!"

The Allegheny Reservoir (Kinzua Dam) is known to become extremely foggy at times. Nobody is more aware of this fact than Deputy Floyd South and Larry West of Bradford. During the summer of 1978, these two men were on boat patrol one evening when the fog swept over the lake — *thicker than pea soup!* Visibility was so poor, the men couldn't see the water over the side of the boat with a spotlight. It was so bad the boat was going in circles and Floyd later remarked, "I didn't know we had three Dunkle Corners out there!" With an assist from the Man above and the McKean County Sheriff's Department, who sounded their siren to lead them in, Larry and Floyd made it safely back to the mooring dock about 2:30 a.m. We have since installed a compass to avoid traveling in circles. A word of advice to all pleasure boaters who plan to boat on the Allegheny Reservoir: if weather conditions hint fog is socking in, head for shore *"right now,"* or put out the anchor and unroll the sleeping bag! I'm sure Floyd and Larry will second my motion.

Don Parrish
Waterways Patrolman
McKean County

AIRBORNE!

A recent discussion with a local state trooper revealed that some strange things can happen to those who venture out of Greene County to fish. It seems this gentleman had traveled to Kinzua Country and was fishing in the tailrace. He had on a large shallow running minnow lure and was casting with it. Shortly, a seagull appeared on the scene, and, spying the lure, dove into the water and came up with it in his mouth. The seagull took off with my friend's plug in his mouth and after stripping off all the line, a tug of war started. Not being the type to be bested by any bird, my angler friend put up a valiant struggle, and finally the bird let go of the lure and it was retrieved. Apparently, the bird had not gotten hooked. If he had, my friend would still probably be chasing that seagull!

Gary Deiger
Waterways Patrolman
Greene County

NEVER AGAIN!

While attending one of the Fish Commission exhibits at EXPO at the Viewmont Mall in Wilkes-Barre, I observed the following: a youngster had put his finger into a container that had different types of frogs preserved in formaldehyde.

Mother: "Did you put your finger into that stuff?"

Youngster: "Yes, so what?"

Mother: "That's *Formaldehyde!*"

Youngster: "So what?"

Mother: "They put that stuff on *dead* people."

Youngster: "Oh! My GOD!"

He then proceeded to rub the finger on his sleeve. I'm not sure if he wore a hole in the sleeve or not, but I think he came very close!

Stephen A. Shabbick
Waterways Patrolman
Wyoming County

WHOOPS!

While talking to a stocking truck driver from the Huntsdale Hatchery yesterday, he informed me that he likes to read the **"Stream Notes"** in the *Pennsylvania Angler* and was disappointed not to read about a sort of unpleasant incident which happened to him while he was stocking trout at Harveys Lake a few years ago. The only reason I did not submit this ditty was that I thought it might have embarrassed this driver had I done so. Seeing as he would like to see it in print, here goes!

While backing down on a paved boat-launching ramp, prior to netting some trout off at one of our "normal" spots, somehow the driver lost control of his rig and "Ker-plunk!" back she went into the lake with water coming into the cab! It was very amusing, to say the least, to watch the driver "abandon ship." And, like a good and true "Captain," when he crawled out of the cab, he had in his hand a most important item: *the stocking instructions.*

Three Cheers for Truck Diver "Splash" Donavon. Needless to say, the number of stops needed to unload "Splash's" truck was only ONE!

Claude M. Neifert
Waterways Patrolman
N/Luzerne County

"HEAVY," MAN!

Ralph Clark, from Dillsburg, informed me that his *Angler* subscription had expired! I informed him that the subscription prices were going up in June and that a 3-year subscription was going to be a big savings. Ralph agreed; then paid for the subscription with seven silver dollars and a silver half dollar. Did you ever try to carry that much silver without listing to the starboard?

Warren Singer
Waterways Patrolman
Adams/N. York Counties



There are undoubtedly a dozen or more explanations regarding what went wrong here! We'll let you ponder.

Ashore & Afloat

by Gene Winters

The Fourth of July traditionally kicks off the peak summer vacation boating season. Energy problems aside, this year has every indication of being the same. The distances we travel for our weekend getaways may have decreased: the amount of time we spend under power may have shrunken; but, undaunted, we struggle onward in pursuit of peace and tranquility, rest and relaxation.

The nice thing about vacations is that we get the chance to do more and on a larger scale of whatever it is we do on our weekends. But big is not always better; longer is not always best. Based on probability statistics, it's also the most likely time for things to go wrong. We enter the shadowy domain of the little gremlins (the bad kind). These, the vacation days, are suddenly the days that all the bugs and related bugaboos seem to wrap their invisible web around us. Things fail: mechanical things ... electrical things ... even human things.

Trailer lights stop working just as the state cop falls into line behind you during the darkest part of your drive. Car brakes unexpectedly malfunction for the *first time* — just as you back to the water's edge on an unbelievably crowded ramp (and you're more than a little embarrassed as you pull back up the ramp with one hundred gallons of the state's waters in your trunk!). A boat battery that worked like a charm every weekend mysteriously fails to provide even one little tiny volt, first day out on vacation.

The kids wait until the day after you arrive to suddenly come down with the summer measles (*summer* measles?). Mom suffers next thing to a shoulder separation from tossing out the anchor with a wee bit too much enthusiasm. Dad, you spend a whole day running down a doctor in a strange town to get a spur-of-the-moment tetanus shot (convinced it couldn't have been *you* who put the fishing lure on the deck for just a moment!). Ah, the joys of summer, and the arrival of that well-deserved vacation. How could any of us possibly have a secret, silent yearning to be back home, back in the work force again?

Over the years, I've had many experiences, on and around the water. Some good, some not so good. Come to think about it, I could say just about the same thing for my entire life. I've also witnessed quite a few others go through their joyful, playful days of summer — winners and losers, in action and out of action.

I still recall the time a curious youngster removed the transom drain plug while his dad snoozed contentedly on the boat's sleeper seat. Dad woke up just in time to feel the stern settle comfortably in the mud and the water lapping all over his body. No real harm done — the boat was in less than two feet of water and at anchor. Besides, how far can a 16-foot boat drift with several hundreds of gallons of water settled in her innards?

I must have seen a thousand boats launched from trailers (give or take one or two) and no less than a dozen *cars launched from ramps.* It must be difficult to explain to AAA why you needed a wrecker on the shoreline of Lake Erie? Certainly, no one would misunderstand why the wheel chocks had been left at home. We're all doing all we can to reduce vehicle weight and

conserve gas, aren't we?

With a little thought, understandable too, were the motives of some youngsters at a marina during the Fourth of July last year. Swept away by the aerial fireworks provided by an adjoining campground, they raced to the family boat to join in the celebration. Three red flares, one orange flare, and one purple smoke flare later, an embarrassed father tried rather pathetically to explain to a state trooper his youngster's unbridled, if misguided, patriotic enthusiasm. (And, I understand, he is still trying to collect from an insurance company for a scorched and well-ventilated bimini top).

I remember well how routinely wives, girl friends, and lovers have been assigned the chores of casting out the anchor. Have you lifted and heaved out any good thirteen-pound anchors lately, fellows? In particular, I remember one summer day. A boat pulled in unnecessarily close to our boat, and prepared to drop the hook for the night. (Ever notice how, even in 80 acres of water, all boats anchor within handshaking distance of each other?) I can't prove it, but I'd wager the male member of the crew of two had never cast any anchor in his life. But, in the true vacation spirit, he was suddenly moved to relieve his female companion of the task. Like a knight from days of old, he raced to the bow, pulled the anchor from the startled girl's grasp and, in a move that should have been heralded by Caesarlike trumpets, tossed the anchor into the still waters. There were two sharp, distinct splashes: the first, when the anchor hit the water; the second when the young lady hit the water! The anchor line had been neatly coiled . . . around her ankle. I hasten to assure you an incident like this is not, at least initially, a laughing matter; but, when it was known the young lady was uninjured and back safely aboard, it was hard to stifle a chuckle or two! What had been a beautiful, loving relationship between two adult, mature persons splashed into, at best, a instant love-hate relationship. Needless to say, the couple's discussion was heard, in no uncertain terms, from shore to shore. And there was one less boat at anchor in the cove that night.

I've been personally involved in a few vacation misfortunes, too. I'm sure I've already recounted the story of the time the reverse gear failed on my outboard, just as we were pulling in along dockside. Anxious to keep the boat from hitting the stern of one tied up dead ahead, I grabbed a docking line, jumped on the gunnel, and leaped for the dock. A passing boat rocked us, my stuntman timing was thrown off, and I missed the dock! Fully dressed, I settled to the bottom of the Susquehanna River in twenty feet of water (which ain't too bright a way to go for a fella who is only 5' 10"). But, defying all odds, I fought my way back to the surface — not once but *three times*. One the second upward surge, displaying an uncanny presence of mind, I stretched out my arm to hand my forty dollar eyeglasses (pre-inflation price) to my wife who was waiting patiently aboard our boat for my eventual and permanent return. Did you ever see a blind man struggling against the sea to survive? And what did the doctor mean I was "physically okay" after I rescued myself and "the only possible long-term affect could be psychological trauma . . ."?

Yes, there are countless tales I could spin of the deeds of misfortune that taunt and pester us during long-awaited summer vacations. I've had space to tell only a few. Fact or fiction? I submit as proof my author's notebook, dog-eared and waterlogged, filled to the brim with misadventures on the water. As I write this article (on April Fool's Day so you have something to read on the Fourth of July), there are so many more sea stories I would like to tell . . . so many more!

This scene reminds the author of a dockside leap he made . . . missed . . . with near fatal consequences!

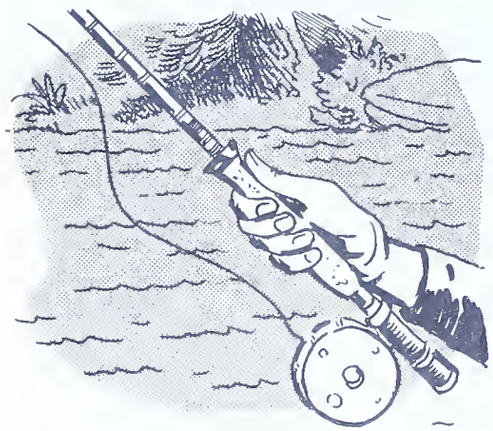


THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Northern pike are real gluttons on a feeding binge. A fish of this species will scarcely swallow a big baitfish before it takes another, and it often will continue to feed after its stomach is crammed full, with perhaps a fish in its gullet.

Ever think about how you hold a fly rod, especially if your arm and wrist get tired? Experts agree that the most comfortable grip is with the thumb on top of the handle and the fingers curved around it. This position lets the thumb give an extra push and makes it easier to achieve long casts.



Minnows often are hooked through both lips when used as bait. Be careful in inserting the hook. If it pierces the head, the minnow is almost certain to die.

An electric motor is an ideal helper for the angler who likes to fish from a canoe. It is light enough for use with a canoe, and it makes far less disturbance than a paddle.

Keep tension on the line — just enough to "feel" the action of a jig, from the moment it enters the water until it rests on bottom. It is an established fact that bass and walleyes often take a jig as it drops down in the water, but the take is so delicate that the angler is not aware of it unless he is in contact with the jig through the line.

Keep your eyes wide open when fishing water that contains rocks and other obstructions that create holding the feeding stations. These current-breakers do not always protrude above the surface of the water. Some of them, in fact, may be so deep that a careless examination of the water will not reveal them. Yet, regardless of depth, they break moving currents and attract fish.

Lines finished in white, cream, or very light green are especially good in fishing with nymphs or wet flies. The angler watches the end of the line for any indication of a strike on the sunken lure. A dark green or brown line is very hard to see in and on the water.

Pickerel prowl shallow water in search of their natural prey. Fly rods and light spinning tackle can be used to get such pickerel lures as spinners, little wobbling spoons, and streamers into the shallows without frightening the fish.

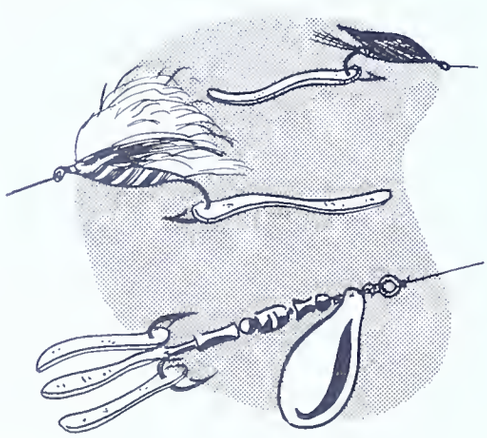
Don't try to cast into the next country. The result probably will be bad presentation of the lure. Know your limitations and attempt only the casts you know you can make properly. A fly or lure, accurately cast, can take fish on casts of only 25 or 30 feet.

Red and white spoons are great favorites in pike and pickerel fishing, but when the water is low and exceptionally clear, spoons in darker colors, even all black, sometimes are more effective.

Fish must see a lure, so a large lure is necessary in big, heavy water such as a river or lake. A lure of medium size will be effective in water of average depths, such as a creek, but very small lures are best in confined water, such as in brooks.

Even fish that are resting — instead of actively feeding — can be interested in a lure that is presented with delicacy and precision.

A sliver of pork rind makes many lures more attractive to fish. While this combination is involved most often with spoons, a little slip of pork is also a good addition to a streamer or bucktail, a spinner, a big wet fly, and even a floating bass bug.



Riffles are the cafeterias of trout streams. Aquatic insects hatch in the riffles, and small minnows also are present. Also, the temperature and oxygen content of the water are more to the trout's liking. So, don't wade carelessly through riffles . . fish them carefully, without entering the water if possible.



Fat-bodied flies with fairly heavy hackle and quill wings, all of jet black, are good bass flies when used with small spinners.

A light wire hook in size 16 is ideal for grasshopper fishing.

Trout that have been roaming all over a stream during the early summer will seek cooler water during July and August. They will take positions in relatively deep pools, at spots where springs send fresh water up from the bottom and at the mouths of cooler tributaries.

For trolling, a streamer or bucktail should have a hook no smaller than No. 2.

Lunker hunting usually is good in August. The biggest trout in the stream have taken refuge in deep pools and in heavy currents where there are pockets of quiet water. A large pool with an undercut bank, large rocks on the bottom and over cover are favorite lunker haunts. But also fish the water adjoining such pools, for when the big fellows are hungry they will range good distances from their summer refuges.

Burying the point of the hood in a worm bait is not necessary. No fish is likely to spot the hook point protruding from the body of the worm. Besides, a hook with the point exposed does a better job of hooking a fish.

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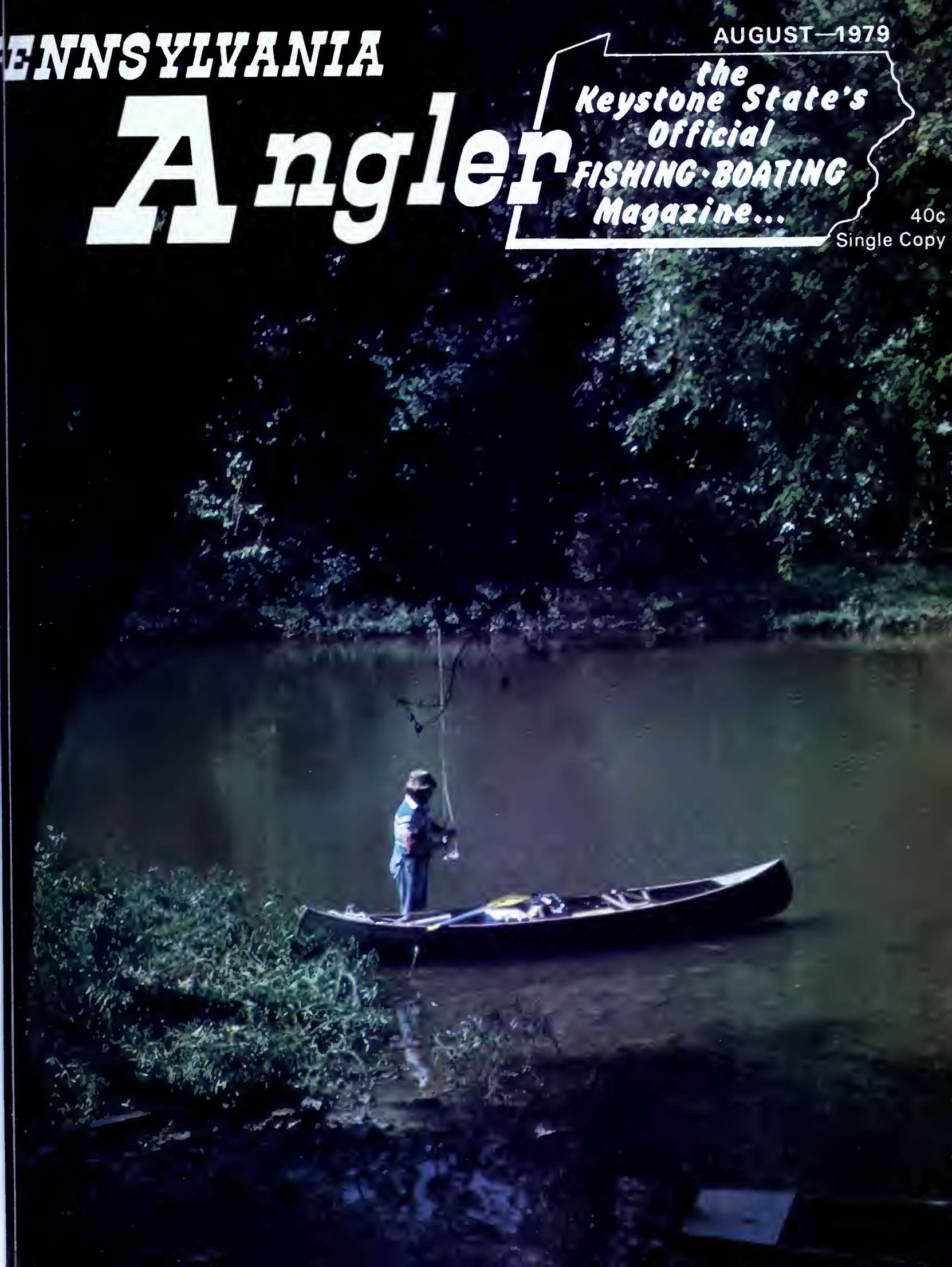


AUGUST—1979

ENNSYLVANIA Angler

the Keystone State's Official FISHING·BOATING Magazine...

40¢ Single Copy



On May 15, 1979 a great man died with his boots on. Dr. Roger M. Latham fell to his death in the Swiss Alps and the world lost an irreplaceable great man. We lost a dear friend. The following was written for the Pittsburgh Press by Roger just before his tragic death and we think it should be shared by as many as possible. Ralph W. Abele

How Wonderful Life Is

by Roger M. Latham

"Little flower — if I could understand what you are, root and all, and all in all, I would know what God and man is."
Lord Tennyson (1807–1892)

What a wondrous thing life is. How remarkable is the capacity of all living things to perpetuate their kind, from the microscopic single cell to the leviathans of the oceans.

Anyone who studies life has to marvel at its appalling complexity and its unbelievable variability. And living things introduce a dimension called behavior — a quality similarly diverse and unpredictable.

Yet, because of its complexity, the study of life may be the most fascinating and most significant of all disciplines. The knowledge gained can lead to a better understanding of, and usually to an acceptance of, the doctrine that life was created by a Supreme Being.

It is not difficult to see a master plan at work when nature is studied intimately.

We see an acorn or other tree seed which has been subjected to severe freezing and soaked in many rains come to life at the proper time in the spring. First, it sends down a root to serve as an anchor and to prepare for the task of feeding the plant above ground. Then a sprout emerges to reach above the soil and produce the first pair of leaves.

The remarkable drama of life continues as the green leaves almost immediately begin photosynthesis, that marvelous process whereby carbon dioxide and water are combined in the presence of light to produce carbohydrates. With all his knowledge, man has never been able to duplicate this process artificially.

Animal life is just as amazing. The Arctic tern flies 22,000 miles roundtrip annually on its migrations, from the Arctic to the Antarctic and back again. On the return trip, it flies unerringly to the place of its birth.

The salmon after several years at sea returns to its home stream. Often this journey involves hundreds of miles of travel.

The bat flies on the darkest night and avoids obstacles through a sonar system. Its "squeaks" are echoed back to it from any object, even the finest wire and it literally "sees" with its ears.

A woodchuck fattens in the fall and sleeps away the cold months because it would be unable to survive the winter otherwise. During its long sleep its respiration rate is reduced to about one breath every four minutes and its body temperature drops to about 42 degrees.

In somewhat the same way, a resting stage of the moth (the pupa) survives the severe temperatures of winter encased in a silken cocoon. Protected by an antifreeze within its body and the meager insulation of the cocoon, it remains dormant until the warm days of late spring. Then the arrested development continues and a beautiful winged creature emerges.

Ants, termites and bees live in large colonies where different individuals have functions in these insect societies. Some serve as workers, others as soldiers, air-conditioners, nursemaids and a few as drones — males with no duties except to fertilize the eggs of the queen bee. The queen is the only insect in the entire hive to lay eggs.

The snowshoe hare and the ptarmigan turn white in the winter and back to brown in the summer. The goose, the hawk, the songbird and other birds lose all their feathers and grow new ones periodically. The deer sheds all of its hair twice a year and dons a new coat spring and fall.

The deer keeps warm in winter by insulation provided by air-filled hair. The goose can sit for hours in ice-cold water because it is protected by specialized feathers called down, the beaver swims under the ice and feels no cold because it is protected by water-proof fur, and the seal that lives among the ice floes keeps warm because it is insulated with a heavy layer of fat.

The "designs" of nature are remarkable. Animals are governed by an internal force called instinct and both plants and animals follow patterns dictated by external stimuli of many kinds, including light, temperature and moisture.

This pattern of life, this scheme of things, can never be fully fathomed by mortal man, anymore than he can fathom the awesome distances of the universe or the infinite duration of eternity.

Yet, he should recognize that life, the universe and eternity are organized and regulated and exist as a part of a great master plan devised by One who created all things.

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

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Summertime . . . the waters of the Commonwealth beckon one and all. Anglers, boaters, swimmers . . . all can find relaxing recreation afloat or at waterside.
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James F. Yoder, Editor

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WANTS "NATURALS" —

I just got done looking through the March, 1979 issue of the *Angler* and I enjoyed it a lot. I especially enjoyed Jim Hayes' article, "Pennsylvania Wilderness Trout." I've noticed that most of your articles on trout fishing are about using flies. I don't fly fish though I enjoy reading about the sport. In the near future could you please try to print an article about using salmon eggs and natural bait in the *Angler*. I receive other outdoor magazines but I always look forward to the *Angler* more than any other.

RICK HARRIS
Johnstown

FORTUNATE . . .

I picked up a copy of the December 1978 *Pennsylvania Angler* along with many other "freebees" at the annual Pittsburgh Sports Show held last month. It impressed me enough to try a year's subscription. It was educational, entertaining and worth the price in these days of inflation. Having spent two years in southwest Montana really taught me how fortunate and important it is to know more about our Pennsylvania "fishing" state — from "where-to," "when," and "what-if" categories. The *Pennsylvania Angler* is a great source for all this information.

MICHAEL J. NAPOLEON
Wilmerding

"COLLARED"!

Responding to Ron Freed's photo and caption, *It Hurts "Litter-ly"* on page 4 of the March, 1979 issue of the *Angler:*

Buried somewhere among my fishing gear, or on my fly tying table, I have saved a metal ring about two inches in diameter which looks very much like the ring encircling the trout in Ron's photo.

My ring also encircled an eight-inch brown I caught on a dry fly about twenty years ago in Mountain Creek, Cumberland County. The ring was lodged just behind the gill flaps of my fish and left the same type of circular depression shown in Ron's photo.

Noting only scar tissue made by the ring, I carefully removed the ring, stuck it into my pocket, and released the trout. I am positive that he survived. Several weeks later, fishing the spot of my release. I again caught that trout. He was easy to identify.

In my imagination I have conjured several ways in which my trout may have acquired that "necklace." Did some "joker" deliberately place that ring? Attracted by the bright reflection of the glistening ring, did he inadvertently "lasso" himself as he inspected the bright object? Did he stick his nose into a discarded, cardboard container of grated cheese (The ring is the correct size for such a cheese container) with the cardboard eventually disintegrating, leaving him with the "ring around his collar"?

I am partial to the latter explanation. Proof of two instances of trout encircled by metal rings leads one to believe that other instances of this phenomenal "accident" may exist.

CLARENCE GLESSNER
Shippensburg

YOU TELL 'EM, RAY!

Over the years I have read many articles in your magazine about our so-called sportsmen who tell you not to print this kind or that kind of article in your magazine, and I don't think that is very sportsmanlike of them.

If these persons don't like certain articles in your — or *our* magazine, just tell them to pass them up and read or look at what they like because I think this is the best magazine you can buy for the price we pay for it. Here's my check for three more years of it. Thank you.

RAY NIXON
Robinson

DOLLAR SAVER

May I submit a suggestion for your "Leaky Boots," or whatever?

When your brand new $3.00 plug gets snagged what do you do? Yank as hard as you can hoping to break loose, right? Wrong! This only serves to embed the hooks more firmly.

Here's what you do: get yourself 3 or 4 dipsey sinkers (they're the pear-shaped ones with an eye on the tip), and thread a paper clip through the eye. One-ounce sinkers will do very nicely.

When you get "hung up," move the boat directly over the plug (or slightly to the rear of it), and slip the sinker on the line so that the line runs freely through the paper clip and let the whole thing slide down to the plug.

Now — raise the rod tip *gently* a foot or so with a tight line and then lower it to slack line. Repeat this with patience. It may take 5 minutes or more to free the plug but this system will work nine times out of ten and is certainly worth the trouble.

Some tackle stores sell the rig described above already made up but they are so simple to make, why buy 'em?

Yours for good fishing.
CLIFTON W. RUSSELL
Mt. Vernon, N.Y. 1055?

"SUGGESTION"

A suggestion, if I may. Could, or would it be possible that printing the renewal coupon for the *Pennsylvania Angler* just be inserted somewhere in the magazine so that it would not be necessary to cut into an article such as the January issue. Some of the articles are referred to later in the year; so, behold, when this happens there's a hole in the story. This is just a suggestion.

W. M. BERNDT
Altoona

Good suggestion, Sir, BUT — our little coupon must be slipped in whenever and wherever space permits. It would be difficult to predetermine which section of the magazine should be chosen for the resulting "hole."

***Countersuggestion:* all we need is the *information* contained on the coupon. It need not be removed from the magazine. Simply jot down the information requested (print it, please), and you'll have both your subscription and an unaltered magazine. Ed.**

"DOWNRIGHT ENJOYABLE!"

Mr. Bouch's "Memories of the First Fork" (*Pennsylvania Angler* — May, 1979) was simply downright enjoyable! We all have our own memorable moments we would like to share with one another within our angling fraternity. That certain stream or that certain pool where we caught some trout or "lost that big one." The sound of riffles that not only drowns out other noises, but also problems of the day. That pleasant surprise when you look up after tying on a fly and see a doe and her fawn standing in the woods directly across from you. The big brown that you know is there but can't quite reach, yet you keep on trying anyway. That certain old lodge you go to where our wives wouldn't even think of setting a foot into. We think it's heaven, they think it's the opposite. That four-hour drive that only feels like one, because it's

illed with "fish talk" . . . the camaraderie hat you feel between you and your partner. The many memories that help us get o sleep a little easier at night. Memories hat we have now, and for years to come.

PAUL K. FISCHER
West Caldwell, N.J.

"RELIGIOUSLY"!

My great uncle fished religiously by the solar table and consistently caught the most and biggest fish. Unfortunately, he passed away before he passed on any of his secrets. I have checked with all my "expert" fishing buddies, but could not find anyone that knew anything of the solar tables. Please explain how to read the tables so that I might experience that trophy catch.

Thank you for the explanation I am sure I'll receive. Also, we Pennsylvania fishermen all may not write in an voice our thanks. But, after seeing the turnout and results on this year's opening day of trout season, I'm sure every fisherman out there appreciates the great job the Fish Commission does. Thank you.

PAUL E. CRUM, JR.
Johnstown

***"Solunar Tables for the Current Year,"* originally published by John Alden Knight in 1935, is available from THE ANGLER'S SUPPLY HOUSE, INC., P.O. BOX 996, WILLIAMSPORT, PA. 17701 for a two-dollar bill, plus sales tax, plus another buck-and-a-half for shipping and handling. We wouldn't attempt to ". . . explain how to read the tables" — it's all in the book. Ed.**

RIGHT DIRECTION . . .

I would like you folks to know that I am very pleased with the direction that quality angling has progressed. I refer specifically to the new liberalized extended season for trout and the emphasis on panfish.

It is my fervent hope that such progressive thinking will continue. I salute you!

JAMES COLLINS
"A Most satisfied angler"
Williamsport

STAR PERFORMER!

A first happened to me while fishing in the Ontelaunee Creek, Berks County, on opening day of trout season.

I was standing knee-deep in the creek and had the best strike of the morning. I set the hook and fought a 14-inch rainbow to my net. Still standing in the creek, I unhooked the beauty while he was still in the net. Getting a firm grip on the fish I lifted him out of the net into my wicker creel. I put him into the hole on the top without so much as a twinge from him — which surprised me, as I have lost more than one trying to get them into the creel. (There are many reasons why I don't get out of the creek.) After making sure the strap was still fastened, I rebaited and proceeded to fish for my fifth trout of the day.

Suddenly, my basket pulled down and over my left shoulder came the rainbow in full flight right into the creek. It was a perfect jump from the prone position right out of the 2-inch by 3-inch diameter hole on the top of my creel.

What are you guys feeding the fish prior to stocking, *jumping beans?*

WAYNE GASS
Reading

HOW COME?

I would like to ask why the *Angler* hardly has any articles about the fishing in Northeastern Pennsylvania, Susquehanna, Wayne, Lackawanna and Wyoming Counties. Every month I read articles on other parts of the state, but hardly ever in my area. We have excellent trout, bass, bluegill, walleye and many other kinds of fishing in our beautiful region.

DAVE MARTIN
Dickson

It's good you included *"hardly ever,"* Dave, because we have featured (relatively recently) River fishing in *Susquehanna* County, Upper Woods Pond kokanee fishing in *Wayne* County, *Lackawanna* State Park Park Lake fishing in the county of the same name. I'm inclined to agree with you, however, that the Northeast could stand much more coverage in the Angler. Our problem seems to be in finding free-lance writers who frequent the area — almost all of the *Angler's* feature articles are done by free-lancers. Perhaps our "prodding" here will get results. Ed.

TO UNHOOK . . .

Upon reading Wayne Imler's account of "Mis-hooked," it brought to mind the time back in the 30s when my father accidentally pulled a heavy carp hook into his finger while carp fishing. A fellow fisherman removed it on the spot by first wrapping the finger with fishing line, tightly enough to numb the finger, then, with a pair of pliers gently and painlessly removed the imbedded hook. Of course, a tetanus shot followed to ward off infection. Thought this information may help someone who could be a long way from medical help.

ARTHUR B. NEWHARD, JR.
Pottstown

FROM WHENCE?

As a child, I recall seeing a poem regarding fishing hanging in my father's office. I thought that it may have been Izaak Walton, but I checked several sources regarding his works and I can't find it. I wonder if you may be able to steer me to it. It contains the line, *"a man's thoughts are good and clean — out fishing."* Thank you.

VERNON KRUG, LIBRARIAN
Northern Cambria School District
Barnesboro

We know not from whence it came, Vernon, but we'll bet one of our readers does and will be sharing it with us pronto! Ed.

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Brief Bits

Is That an Order?

Whether an order or just a suggestion matters not, that's good advice Fish Commissioner **Calvin J. Kern** is proffering with his new license plate.



Best Wishes:

To **Art Michaels,** our forme "Meals from the Creel" columnist who went on to greater things in the editorial field.

To **Margaret Karch Zaimes,** cook's cook who has long written the "Fin Fare" cookery columns in numerous publications and will take up "Meals/Creel" next month.

To **Linda Steiner,** whose feature articles have been appearing on the Angler's pages and, beginning with this issue, takes us along on some very interesting "Waterside Wanderings."

Men of the Year

In early April, at the Northeast Fish & Wildlife Conference held in Rhode Island, two Pennsylvania Fish Commission employes received special honors for their outstanding service in separate conservation activities.



Assistant Executive Director **Edward R. Miller,** Director of the Bureau of Fisheries & Engineering, was named "**Conservation Engineer of the Year**" for 1979 by the NORTHEAST SOCIETY OF CONSERVATION ENGINEERS. His commendation read, in part, "Your personal dedication and professional achievements in fisheries-engineering and administration have established a 'standard of excellence' which few will ever achieve."

Waterways Patrolman **James Lauer,** Lycoming County, was selected by the executive staff in Harrisburg from a group of candidates nominated by the Division of Law Enforcement's six Regional Supervisors. "The NORTHEAST CONSERVATION LAW ENFORCEMENT CHIEFS'



ASSOCIATION named Lauer "**Conservation Officer of the Year**" for 1979.

Officer Lauer began employment with the Pennsylvania Fish Commission in 1953 and after brief military service in Germany ('57–'59) resumed his PFC career. He entered the Law Enforcement Division as a student officer in 1965, was subsequently assigned to Lycoming County where he has served until the present.

A Fisherman by any Other Name is not the Same —

Officials at the National Marine Fisheries Services (NMFS) are tongue-tied by the unexpected disagreement that greeted their attempts at egalitarianism. Last summer the agency started substituting the term "fisher" for *fisherman,* a word that carries sexist connotations to some.

But fishermen (and their wives) objected vociferously – both to visiting NMFS officer and in letters to the U.S. Commerce Department of which NMFS is a part — to the change of the age-old nam of their craft and industry. To get themselves off the hook, reports the Wall Street Journal, the fishery administrators have obtained special permission from Commerce Secretary Juanita Kreps to use the word "*fisherman*" at their discretion Courtesy *Conservation News* NATIONAL WILDLIFE FEDERATION



Marburg Musky

Charles W. Glass joined a very select group of anglers when he hauled in that 50-inch muskellunge from the waters of **Lake Marburg.**

There's no photo trickery here. You just don't have to make a 39-pounder *look* big — it is! If you've ever wondered how big your musky bait should be, one look at those jaws will give you some clue.

It's not "Catchy"!

Common near streams and ponds throughout Pennsylvania, the American Toad represents one group of the tailless amphibians. The other group being the frogs. Although toads have warty skin, *they do not cause warts.* Their warts are actually glands that produce substances distasteful to animals that might be tempted to eat a toad. Photo: RONALD E. CHARLTON



Gobbling Goats

Arizona shopping centers now have a new kind of vending machine — it consumes, weighs, sorts, and separates aluminum cans and pays 13 cents a pound in return. First installed in June, 1978, the "Golden Goat" gobbles up to 7,000 cans each hour, separating aluminum cans as it operates. The cans are then crushed and stored for weekly pickup. The remaining garbage is relegated to a temporary holding tank. Some 20 "goats" are now "grazing" in shopping center parking lots in Pheonix, and more than 400 are planned for distribution throughout the country this year.
Courtesy *Conservation News* NATIONAL WILDLIFE FEDERATION

Need Information?

If your question concerns a local (county) matter, your District Waterways Patrolman is your best source of information. You'll find his name, address, and telephone number in the "Summary" you received with your fishing license. For other information, use the FISH COMMISSION DIRECTORY on the inside of our back cover. The function of each office is reflected in its title. Select an office which would appear to be most closely related to your inquiry and write or call that office direct, rather than this magazine. You'll save time, postage, duplication of effort, and recieve a prompt, accurate reply.

What Did it Weigh?

In these days when anglers travel many miles to find big fish, it frequently happens that some time will elapse between catching the fish and being able to weigh it on accurate scales. The following tables of comparative weights of fish when taken from the water and the same fish after it has been dead from six to 12 hours may be helpful in telling of the big one that did not get away:

Just Killed	Dead Six Hours	Dead Twelve Hours
1 lb.	— 15½oz.	— 15 oz.
2 lb.	1 lb. 14½ oz.	1 lb. 14 oz.
3 lb.	2 lb. 13¾ oz.	2 lb. 13 oz.
4 lb.	3 lb. 13 oz.	3 lb. 12 oz.
5 lb.	4 lb. 12¼ oz.	4 lb. 11 oz.
6 lb.	5 lb. 11½ oz.	5 lb. 10 oz.
7 lb.	6 lb. 10¾ oz.	6 lb. 9 oz.
8 lb.	7 lb. 10 oz.	7 lb. 8 oz.
9 lb.	8 lb. 9¼ oz.	8 lb. 7 oz.
10 lb.	9 lb. 8½ oz.	9 lb. 6 oz.
11 lb.	10 lb. 7¾ oz.	10 lb. 5 oz.
12 lb.	11 lb. 7oz.	11 lb. 4 oz.
13 lb.	12 lb. 6¼ oz.	12 lb. 3 oz.
14 lb.	13 lb. 5½ oz.	13 lb. 2 oz.
15 lb.	14 lb. 4¾ oz.	14 lb. 1 oz.
16 lb.	15 lb. 4 oz.	15 lb. —
17 lb.	16 lb. 3¼ oz.	15 lb. 15 oz.
18 lb.	17 lb. 2½ oz.	16 lb. 14 oz.
19 lb.	18 lb. 1¾ oz.	17 lb. 13 oz.
20 lb.	19 lb. —	18 lb. 12 oz.
30 lb.	28 lb. 9½ oz.	28 lb. 2 oz.
40 lb.	38 lb. 2 oz.	37 lb. 8 oz.
50 lb.	47 lb. 10½ oz.	46 lb. 14 oz.

Estimating its Weight

The formula given for estimating the weight of a fish calls for a certain amount of mathematical skill. For instance, a trout 23¾ inches long with girth of 13 inches, has its weight estimated as follows: $13 \times 13 = 169 \times 23\frac{3}{4} = 4{,}013\frac{3}{4} \div 800 = 5$ lbs. approximately

This estimate is practically the same as that of Sturdy's Table of weight for length of trout. Here is the Sturdy Table for trout which is simple to follow:

Sturdy Table for Trout

Inches	Lbs.	Oz.	Inches	Lbs.	Oz.
9	0	5	20	3	7
10	0	7	21	4	0
11	0	9	22	4	9
12	0	12	23	5	3
13	0	15	24	5	15
14	1	3	25	6	11
15	1	7	26	7	8
16	1	12	27	8	7
17	2	2	28	9	6
18	2	8	29	10	7
19	2	15	30	11	9

Editor's Note:

The foregoing appeared in "**Angler & Hunter in Ontario,**" and is reprinted here with permission. We're grateful to ***Editor Jack Davis,*** who says ". . . I am unable to shed any light on the method by which the shrinkage table was formulated. I have had this in my files for many years and do not know where it originated. What I do know is that I have used both tables (and the formula) for a long time and found it amazingly accurate . . . hope your readers find the tables useful." (For those readers who are bound to ask, "***A & H in Ontario***" can be reached at Box 1541, Peterborough, Ontario K9J7H7.)

Waterside Wanderings

by Linda Steiner

To enjoy the outdoors, especially along lakes and streams, it isn't necessary to spend a lot of time there. It's more important what we do with that time, the quality of it rather than the quantity. We look, but do we always see? I'm one who is as likely to have binoculars, magnifying glass, sketchbook, rocks, leaves or caddis cases in my creel as a brace of frying-size fish. But then, there is more happening . . . more to be enjoyed in Pennsylvania's outdoors than just fish to be caught, or calm water to be whizzed across, every season and each month of the year.

August is just such a month. On the surface, it's hot, humid, typically summer. Along what had been trout streams in April, I find low, warm water . . . sunlight glaring through the clear liquid to reveal every feature of the stone or sandy bottom. Even the suckers and creek chubs are hiding under rocks and submerged roots along the banks.

And the trout? They've moved upstream to shadowy lairs, where water temperatures are more to their liking, or below bubbling riffles or waterfalls where there is more oxygen. Trout have also entered the mouths of cold, spring-fed feeder streams, where the coolness makes them more comfortable. If I want to catch any now, I must find them there, though there were times when I saw the fish more concerned with just surviving in the warm water, than in taking even my best-looking flies or bait. But, then, during August's dog days, I don't feel like eating, either.

Luckily for the angler, bass are more tolerant of summer days and warm water, though they, too, are difficult to catch in the heat of an August afternoon. They've gone deeper, into tangles of weeds, rock crevices, or under drowned root systems. Both they and the sunfish have long since abandoned their nests of early summer, when they were so conspicuous on their finned-clean circles in the shallows. Only the fry, the tiny, young "fishlings" are left at the water's edge, but they are hiding from the sun's glare under water plants or overhanging brush or grasses. An August afternoon does seem pretty still, except for the droning of insects.

A thunderstorm, of course, changes all that. It whips up wind and clouds, rain and lightning bolts, and then is over. But the outdoor world isn't the same afterwards, and won't be again — for a while, at least. There's a refreshing dampness apparent to the waterside sojourner now, even with the late afternoon sun cutting through the departing thunderclouds.

Insects are the first to emerge after





a hard rain. Spiders creep out to rebuild destroyed webs in the sparkling sunlight, or to check them for broken strands if the traps have been built in more protected spots. There the webs often hang with water droplets like diamond necklaces, with golden orb spiders as the central jewel.

But it isn't long before the webs are back in business, catching insects that are buzzing again in the moist air. Biting gnats and mosquitos are beginning their bloodthristy flights before nightfall, and that is one hazard I must bear to be out at pondside after an August rain.

The re-emerging insects mean suppertime, though, for purple martins and barn swallows that zigzag over the water's surface. Bats and nighthawks will take their places later, their flights reflected in the pond mirror until all daylight disappears.

Frogs, too, are beginning their evening meals of unwary insects. The rain has dampened the whole world to their liking and the croaking bass notes are punctuated now and then by an occasional alto or soprano. The tiny voices of spring peepers have long since been replaced by deep-sounding bullfrogs, calling from among the cattails. A frightened watersnake, a fish and frog eater, leaves an undulating wake as it escapes across the pond.

One frog jumped out into deeper water at my passing, and disappeared in a splash and swirl — bass, too, become active after the rain! The shower, short but heavy, stirred the mud at the pond's edge and minnows are on a feeding spree with so much food washed into the water. Grubs, worms, all sorts of minute life keep the baitfish busy, so it is easy for gamefish to move in for suppertime. A large tail cutting the surface, or minnows jumping to avoid open jaws announce their presence.

Bass relish, as well, the crayfish and insect larvae that have been displaced by the storm. But pickerel and pike have designs on more meaty fare, the young gamefish, chubs, suckers, even bluegills that are too interested in eating to be cautious. If I had brought a fishing rod along, I might have gotten in on the action, too.

A thunderstorm also brings new life to the doldrums of stream activity on a hot summer's day. More food is washed into the flowing water for fish, but if it rained long and hard enough, the water level might rise, a flash flood over sun-baked earth. If the water becomes silt-ridden, it can make life even more trying for trout. Mud particles can clog their gills, which are already working overtime to strain needed oxygen from summer-warmed water.

But in many of the true trout streams, where the land all around is green and forested, heavy rain means little mud, just some high water and lots of good eating. First on the trout's dinner menu after a midsummer storm are land insects. Ants, beetles, worms, caterpillars, drowned flies, bees, all must look like a smorgasbord meal to trout, minnows, fallfish and other stream dwellers. High water can mean more churning in the riffles and more bubbling below the falls, so the increased oxygen makes the stream more to the trout's liking.

Wherever they can find a handy perch, from an overhanging limb to a telephone wire, kingfishers watch for minnows or the young of gamefish. Occasionally their diving splash breaks the water mirror of creek pools or ponds. A great blue heron stands at the water's edge, snakelike neck poised to dart out and spear. Already his turkey-sized tracks have made new etchings in the rain-smoothed banks. Little green herons hunt the shallows or use half-submerged logs as walkways to catch hiding fish. But they'll take a salamander or frog as well, if the chance occurs.

As evening approaches, dobsonflies, crane and stone flies fill the air. In both creeks and ponds, water-dwelling larvae of many types shed their skins for adulthood, although the large hatches of mayflies are over until next spring. Now, only the palest of the mayflies dance over the water's surface at sunset.

If the thunderstorm comes late enough in the afternoon, it will leave a cool dampness that will last all night, making the summer world pleasant for many waterside residents and visitors like me. Even raccoons will stop by to catch a frog or crayfish for a midnight meal . . . gamefish will be free to prowl the shallows under concealing darkness all night long. That's when the smart angler will be fishing.







The first of its kind in Pennsylvania . . .

Fish Ladder Dedicated on the Schuylkill River's Fairmount Dam

When the Fairmount Dam was built across the Schuylkill River 166 years ago, it put an end to the further upstream migration of spawning fishes. The 14-foot-high dam now boasts a fish ladder of the latest design. (More in a future *Angler* report.)

Photographs by Russell Gettig, Staff Photographer



Above: Among those attending the May 8th dedication of the Fairmount Dam Fish Ladder were, left to right: Robert C. Crawford, Chairman, Fairmount Park Commission, Dr. Ruth Patrick, Philadelphia Academy of Natural Sciences, Ralph W. Abele, Executive Director, PFC, Hon. Calvin J. Kern, Member, PFC, Hon. John A. Hugya, Vice President, PFC, and Robert McConnell, Director, Fairmount Park Commission.

Opposite page: Executive Director Abele displays obvious satisfaction with the Commonwealths first modern day fish ladder as the waters of the Schuylkill descend, level by level.

The Peaceful Fisherman

by Loring D. Wilso



". . . the pilot glanced up, rather startled to see my boat a few feet off his bow and asked, 'Any luck?' "

The lake was serene that morning . . . not the barest whisper of a breeze disturbed the mist that was rising in plumes from the still surface as the sun edged over the tops of the trees. I edged slowly into a cove, spotted a likely looking stump silhouetted against the muted colors of early morning, noticed a promising swirl by the stump, and was preparing to cast when something else caught my eye. A heron had just stepped out of the mist along the far shore, and was stalking minnows in the quiet shallows.

"Well," I thought, "that fish can wait a *few* minutes while I learn something about 'fish hunting' from a master!" So, I just held onto the rod and watched the grandeur of the large bird, and how calmly, yet with such dedication, it probed the shallow water with both foot and eye, until with a rapier thrust of its neck, it emerged with a fish about six inches in length.

"OK, friend bird," I thought, "wish me the same kind of luck I wished you."

I calculated the strength of the cast, brought the rod tip back — and at the precise moment a veritable Mario Andretti of the waterways hit the cove in a Lunar Landing Module!

The bass boat was a beauty, I had to admit. Gold metal-flake paint over a sleek, trim body made of the latest anti-collision materials, six mysterious boxes flashing neon lights in a rainbow of various hues, foot-controlled trolling motor, an engine with higher horsepower than my car, and eight rods bristling from holders like a sea-going porcupine made the craft look more like a wild night in Las Vegas than a "fishin' boat." But, the fisherman aboard her must have loved her dearly, because as he rocketed into the once quiet cove, his eyes never left his dials and gauges.

Finally, as the engine abruptly lost its SST whine and the boat settled about two feet in the water, producing a swell somewhat similar to, though with not quite the intensity of a minor tsunami, the pilot (*Bassboatmonaut?*) glanced up, seemed rather startled to see my boat a few feet off his bow and asked, "Any luck?"

I watched rather wistfully as the wake of the fleeing fish that I had seen gradually melded back into the lake, and said, "I saw a heron catch one. It was a beautiful. . . ."

"*Heron!* What are you, a bird-watcher or something? I mean are *you* catching anything?" (Some expletives have been deleted from his conversation to make this article more palatable.)

"No," I said, laid the rod down, and picked up the oars. As I rowed out of the cove, the fisherman started casting. It was a sight to behold. No sooner did the lure hit the water than a burning retrieve brought it back to the boat, and no sooner did the lure reach the boat than it was fired out once more. After a half dozen casts, the fisherman jammed the rod into a holder, wrenched another free and started the same sort of action with the new rig. He was enjoying himself so thoroughly that he hadn't even had time to smile by the time I rounded the bend and he dropped from sight.

I wasn't too upset, though. If he hadn't ruined the fishing in the cove, I wouldn't have left, and I wouldn't have had the chance to see the mama raccoon, with four tiny kits staggering and reeling along behind her, trying to navigate a log across a small finger of water that apparently stood between them and their den tree.

In the past two decades, anglers have seen some amazing changes in their sport, both in the areas that have been opened up for them and in the

developments in equipment that have come along to make fishing more fun and, perhaps, a bit more sure. Still, when it comes down to the wire, it is the angler, and not the equipment, that cajoles the fish — no matter what kind of fish — into taking the bait or lure.

One problem that is especially evident when it comes to the black bass is that sportfishing has become big business. This, of course, is not bad in itself, since the more people who are competing to provide the best and most attractive tackle and equipment, the better tackle and equipment we will all have available to us.

Thus, while the peaceful fisherman may not need eight perfectly tapered rods with matching free-spool bait-casting reels (all the same, so that the fisherman doesn't change the feel of the tackle when he picks up the one with the purple spinnerbait while laying down the one with the lavender spinnerbait attached), he truly benefits (in his one or possibly two rod-and-reel combinations) from the fact that such perfectly balanced combinations have been developed.

Is it necessary for the peaceful fisherman to have eight hip roof tackle boxes bristling with lures? Of course not. In fact, it can get to be a hindrance — unless you know what you're doing — for the simple reason that you'll spend more time changing lures than you will fishing. But, on the other hand, isn't it nice to know that so many beautiful and fascinating lures are available to look at and try if you want to?

Any angler, man or woman, professional tournament-goer or peaceful fisherman, regards a well-equipped lure shop in the same way a small child regards the lights and tinsel on a Christmas tree. One individual element, be it light or lure, may be actually little different from the next, but all together they create a certain kind of magic that many of us lose midway through elementary school. So, *variety* is certainly something we would never want taken away from us.

But then we come to a different kind of magic, a magic that no manufacturer can give any of us. It is the magic that makes the peaceful fisherman, or fisherwoman, or fisherchild . . . the magic that changes a piece of water from a fish market into a birthday present beckoning to be opened. The magic that reveals a world seldom seen in today's urban and suburban society — the magic that makes us realize the greater magic of the great whole of Nature around us, and that, although a very small part, we *are* a part of the greater magic.

I have often wondered what would happen to one of the truly dedicated tournament fishermen if his batteries went dead. Many of them are really great people to know, but when they hit a bass lake, they have only one thought. And then I have talked with some "old coots" who pole around the shorelines in a leaky bateau and know more about the habits of the *Micropterus* clan than many fisheries biologists although if you said "Micropterus" to them they'd probably hit you.

The fact is, being a peaceful fisherman can *improve* your fishing. All those gauges and meters that bedeck the newest bass rigs may be fun for the person lucky enough to be able to afford them, but if they were *absolutely necessary* no one who didn't own them would ever catch fish. And, as the angler learns about water, using his own senses, those senses can replace most of the various electronic gadgetry on the market, and produce side benefits as well.

Admittedly, a depth finder is hard to beat as a tool, especially in deep water, when it comes to locating submerged structure. It is also a handy device when trolling for walleyes and other schooling fish on very large impoundments. But then, that is usually a different sort of fishing than "the peaceful fisherman" will be doing. And, in shallow water, a long bamboo pole marked at one foot intervals, or a sinker attached to the end of a color-coded line, can accurately and easily determine the depth of water — if it needs to be determined.

But how about some of the other electronic gadgetry that has become so popular as "essential fishing tools" in recent years? Can the senses take care of their computer readouts and Fourth of July-type neon blips?

Of course they can. Take the temperature gauge, for example. For a little over a hundred bucks, you can own a thermometer that will tell you the temperature of the surface of the water at almost 40 miles per hour! That would be wasted on me, I'm afraid . . .I'm pretty good, but I can't row *that* fast! However, you can stick your wrist in the water. If the water is cool to the touch, but not really cold, the chances are it is close enough to the "optimum range" for the fish to be biting pretty well (if they want to, which is *always* up to them). Or, for about a dollar you can buy a thermometer that goes in aquariums, put it in the water, wait the interminable time of a minute, and read *precisely* what the temperature is.

After the temperature meter came the oxygen meter. Shell out another monthly car payment and you have a doogidget that will tell you, if you ask it nicely, how much oxygen is dissolved in the water you are fishing, down to two or three parts per million or so (the more expensive the unit, the less oxygen you can see — or not see — or whatever). Haul out the magic charts that are supplied with the unit (sometimes at a small extra cost) and you can tell whether or not a fish could exist there — and possibly how many, their species, their weights, their names — oh, some of these "tools" can do *miraculous* things—at least, according to their press.

How can you even *hope* to get by without one? Try using your eyes! All you have to do is look for some form of fishy looking activity. If minnows or bluegills are disporting themselves in the shallows, making dimples and smacks on the surface, you can be fairly certain that all the other fish in the area haven't smothered to death either. If one form of fish life can exist in a given area, so can others.

Then we have the pH meter. This handy little device tells you the acidity of the water, because it seems that certain fish cannot tolerate strongly acid water (tell that to the pickerel in the peat-stained lakes). But here is a very simple test you can conduct: drop your plug into the water beside the boat and wait three minutes. If the water eats the body away, there is probably too much acid in the water for fish, and you had best move on before your boat dissolves.

All right, we've joked a little here, carried things to extremes, but the point is simply that if we come to rely too much on electronic fishing aids, the next obvious step is to come up with an electronic fishing game to fit one of those cartridge devices that



Has fishing perhaps become a little more complicated than it should be?

plugs into the television set so that we never have to leave the house. It would certainly be a lot cheaper than all the other gear we buy, even we non-electronic fishermen, and we wouldn't have to "brave the outdoors" to take risks of sunburn, chills, insect bites, or seeing something that might bring us pleasure, or a little knowledge about the world around us.

What is necessary to become a peaceful fisherman? Aside from the desire to be one, the requirements are quite simple. A boat of some sort is a help, but only because it gives you greater mobility. There are some waters that simply cannot be fished either from shore or with waders. Besides, there is something peaceful in the act of just sitting in a boat at dawn and hearing the world wake up around you as the sky turns from blue-black to gray to clear blue, and the sun peeks the top arc of its ball above the trees.

A method of propelling that boat is necessary, and for pure practicality nothing yet has topped a pair of oars sized to the length of the boat (a little over half the length from bow to stern is proper). Oars have a lot going for them. You don't have to worry about running out of gas; you don't have to worry about the proper gas-oil mixture, or carrying the oil with you in case the service station where you get gas is out of it. You don't have to worry about your propulsion system refusing to start, or starting and then dying, in the face of an oncoming storm front. You don't have to worry about batteries going dead in the middle of a fishing day. And, if you keep the oarlocks and sockets fitting properly, and learn how to row with a trace of finesse, you don't have to worry about the racket of your propulsion system scaring all the fish out of the lake and up into the feeder streams! If you get rid of that many worries simply by buying the right pair of oars, just think how much more peaceful you'll be — before you even hit the water!

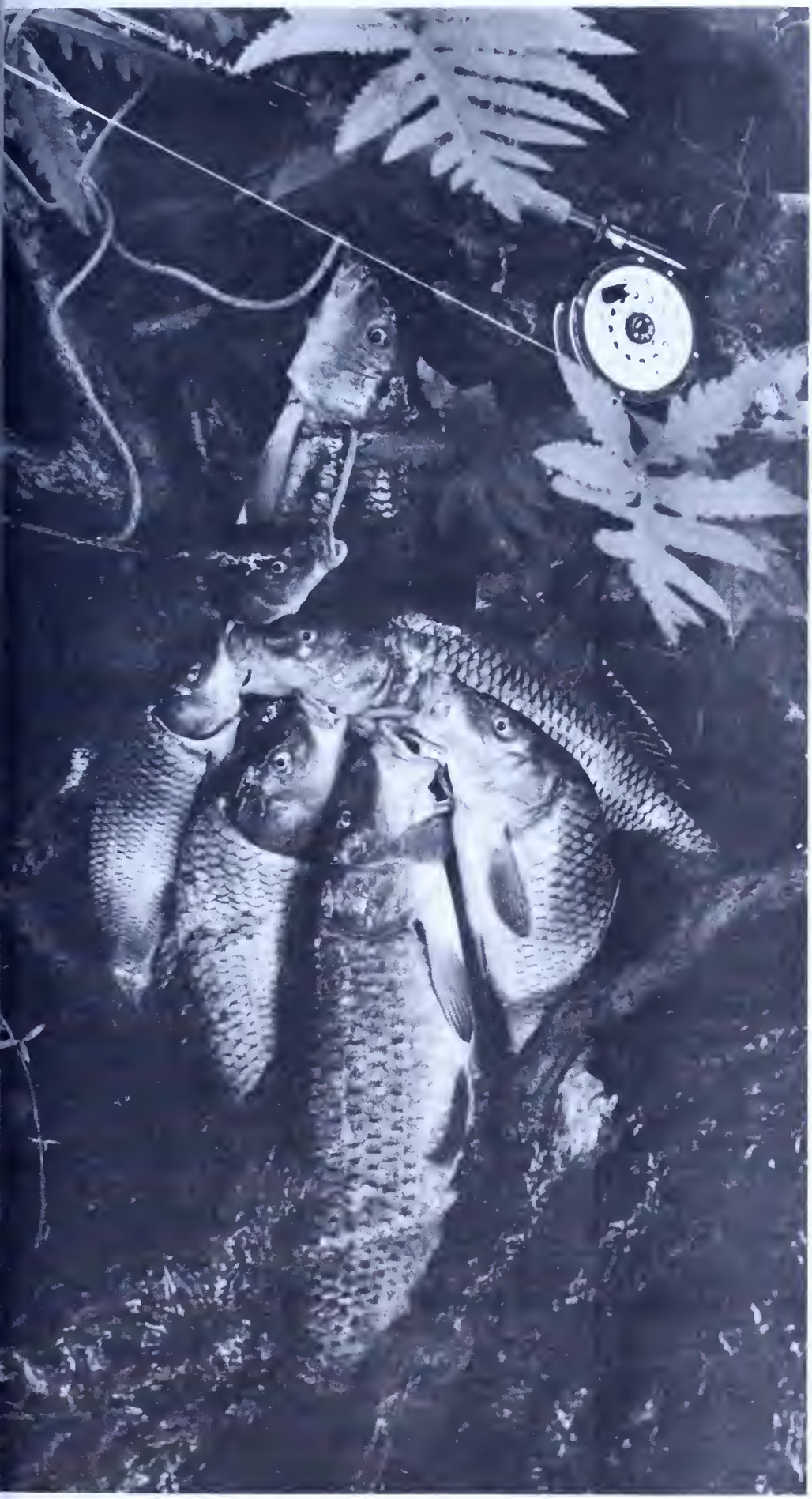
Once you have your method of conveyance, whether waders or boat, buy the *proper* tackle. It really doesn't matter what brand it is, or what style — but don't use cast-off tackle that someone gave you because they bought something better (obviously *they* weren't satisfied with it), and don't buy cheap gear. Spend enough money to get something really good, and learn how to use it in your backyard or a park or field *before* you start fishing. Good tackle won't give you the headaches and malfunctions of inferior gear, and once you learn how to operate it properly, you'll have less to think about — or worry about — on the water. The same holds true for lures. Cheap imports may *look* the same as the American made lures, but they don't always "run" the same — sometimes they don't run right at all.

The only other requirement for being a peaceful fisherman is to sharpen your eyes and ears, and learn how to use them. There is a wealth of nature to be seen if only you will look, a wealth that is completely missed by many anglers who are so intent on more fish, or bigger fish — no matter what the species — that they lose sight of the greater plan, of which both they and the fish are merely a part.

If you like electronic gadgetry, and it makes fishing more fun for you, then use it. But if you have the full array, or even part of the system of electronic fishing aids, think back to when you were a little less affluent, when fishing was simply a matter of finding and fooling the fish through your skills and yours alone, and ask yourself if fishing has perhaps become a little more complicated than it should be, if *getting* the fish has become more important than the act of pursuing it. If your honest answer is even "maybe a little," you owe yourself one daybreak on a small, well-forested lake, in a rented rowboat with *one* fishing rod.

Try it once. I believe you'll come home with a better feeling inside, with almost if not just as many fish — if you really know how to fish to begin with — and a greater awareness, not only of the fish themselves, but of the upper layer of their world. After all, a Great Blue Heron is a much prettier thing to watch than a neon blip!

Hot weather fly fishing for real tackle testers —



These seven fly-caught carp came from the Little Shenango River. Great scrappers, they ranged from 15 to 26 inches in length.

Dry Fly Carp

by Rich Faler

A beautiful green canopy of oak and maple leaves blocked the intense July sun's heat and softened its brightness. The pocket of air under the leaves and over the river's surface was reviving — cool and moist. The pool's surface was a calm mirror, reflecting unbroken images. This was an afternoon that demanded one find shelter from the 95 degree heat. I had found it and was glad I could enjoy my refuge with a fly rod.

Relaxing in the shade, I watched the pool for rising activity. It came faster than expected, as I suddenly realized a two-footer was beside the bank at my feet.

The large fish was cruising in a haphazard pattern as he lazily sucked in fallen beetles and inch worms. I then noticed several fifteen to twenty-inch fish cruising and rising as I concentrated on their larger messmate.

Anxiously preparing for battle, I tied on a #16 clipped deer hair beetle on a ten-foot, two-pound-test leader. Edging to the riverbank's brink, I saw that the lunker was about thirty feet from me as he swam at an angle toward the other shore. I needed a quick presentation, if I wanted a short, easy cast.



One of the author's favorite carp waters, the old mill dam on the Little Shenango several miles above Greenville.

Watching my backcast, I threaded the line and its payload through the surrounding branches and leaves. This accomplished, I turned and directed the terrestrial in the remaining flight. It landed about three feet directly in front of the target. I could not hear it, but I knew it landed with a natural "plop."

The fish heard and saw it, too. He barely hastened his cruising speed as he smoothly glided to his target. Once at the fly, the heavy fish almost stopped as he rose and sucked it in.

I lifted my rod tip. A very smooth and confident rise was instantly transformed into a brutal head-thrashing that seriously threatened the light tippet.

The head-shaking was as quickly changed into a frenzied torpedo run for the next pool downstream. Pointing my rod tip at the disappearing line to lessen strain, I ran after it as fast as two legs in three feet of water could. What a battle! This fish ran out all my line and was working well into my backing before he reconsidered his downstream destination.

Swapping head for tail, he gave the same powerful run upstream. Finally, showing a slight fatigue from his super long runs, the fish doggedly bulldozed throughout the pool. He finally tired enough that he could be led to a gradually sloping gravel bar.

I took advantage of his water-slapping tail to help drive himself aground. The gladiator was on his side when I reached down and carefully picked him up. This scene can be repeated by anyone in the United States. This is dry fly fishing for carp.

I am a person of many pursuits. I live and work in Greenville, Pennsylvania, where I also own and operate a fly shop. I have been a native of Greenville for about twenty years. It is here, and in the surrounding county, where most of my time is squandered in the art of fly fishing

Much of this time is spent trout fishing in the Little Shenango River, which flows through Greenville. This trout stream is not prime trout water. Quality trout habitat is a distance away. I refuse to give up the long rod during the periods when the hatchery trout exhibit a scarcity in numbers or prolonged fasting. Instead, I've developed strange habits as viewed by other fly rod aficionados.

Rather than grab a spinning outfit or waiting for a long trip to some exotic streams, I have expanded my purist "trout and fly only" attitude to include any fish that willingly accepts flies. As already indicated, the carp fills this need.

This is surprising to many fishermen and shocking to others. I will not get into the pros and cons concerning the carp's effect on native fish and the water it lives in. I will, however, state in a forward and unyielding manner that carp are *gamefish* and will take artificial flies, even dries, readily.

Why is it, one may ask, if a carp strikes flies so readily, that I have not heard of many doing this before? Well, there are several answers to this. The main reason for the lack of fly rod carp fishermen is the simple reason that so very few have tried it. There is a stigma attached to carp and carp fishing, especially by those that fly fish. This stigma has caused a calloused indifference to carp fishing.

Fly fishing has developed as an elite sport to take place in moving water for the salmonoids. There has been little motivation to seek other quarry, but, this is changing. We in the fly fishing fraternity are now experiencing a broadening into other horizons: bass, pike, saltwater, etc. This awakening is a change in attitude which looks upon any fish as a likely adversary.

Another reason for the lack of fly rodders taking carp is that the approach in carp fly fishing must be very different from normal freshwater

techniques in order to guarantee success. In American trout fishing, for example, most fishing is done blind. One fishes the water and casts to "likely looking spots." In carp fly rodding, this method is not very productive. The best method for carp is to "fish the rise." This method is stalking and casting to individual fish by sight.

There is a big difference in the final results when using these two styles for carp. This is a major reason for so few carp caught with fly rods — even accidentally.

Even this "fish the rise" method has its problems. A feeding trout has a feeding position where he calmly waits for his meal. As food drifts over him, he watches it until he decides to take it. Then, he rises, sips it in and returns to his original position. A carp, on the other hand, does not hold in a position — a carp is strictly a cruiser. This golden *gamefish* is constantly on the move. This wanderlust during feeding creates a problem for the fly fisherman.

Instead of casting to a stationary target, the holding or feeding position, a cast is made to a constantly shifting and uncertain target. This can lead to a long, well-planned stalk becoming a frustrating exercise in futility.

Some anglers may view this as a reason for not pursuing carp with a long rod, but it is really just an added challenge. Isn't challenge the essence of a good gamefish? Sure it is.

It has been established, but for the most part overlooked, in other articles in various publications, that carp *are* a qualified gamefish and that they can be taken on flies with regularity. These attempts to educate fly casters to this golden gamester point to the eagerness of a carp sucking in nymphs. The dry fly angle, though, has not been approached to any appreciable extent.

A carp is not considered a dry fly potential, because he is depicted as a bottom grubber. To the few brave souls that took to carping, a nymph seemed a natural choice. It was an excellent choice. A carp, however, does feed on the surface quite a bit and this trait can be taken advantage of in a very satisfying manner.

To catch a carp on a dry fly, one needs, of course, a rising carp. A carp will not usually take a dry unless he is already taking from the surface. Carp often alternate between the surface and the underwater foodstuffs, taking a nymph, then a dry and then another nymph. For a strictly bottom-feeding carp to notice and accept a dry offering, though, is not to be expected.

A hatch of aquatic insects, such as mayflies, will draw astonishing numbers of the golden carp to the surface. These large hatches, with their multitudes of emerging nymphs and duns, will at times create a frenzy within a population of carp that speed about the pool, alternately nymphing and rising with great fervor.

Most of my dry fly carping is done to carp feeding on terrestrials. The numbers of rising fish normally observed will not be as great as during the excited gorging which occurs during a hatch, but it is more consistent. That there will be feeding carp during a terrestrial fall is a bet with sure odds. It is a type of feeding that will last all day.

Relatively still pools of water are the best places to locate rising carp. They feed in fast water, but a feeding carp does not stay in one position. This wandering makes them hard to keep track of where one has broken water or a heavy current to contend with.

Carp do not feed selectively. One need not dump out his fly box for a #18 sulphur dun to match the hatch when carp fishing. This eliminates one of the frustrations that all fly fishermen bear. A carp will take any reasonable dry fly when he's on surface fare. I usually use a #14 or #16 beetle imitation. I have used as small as a #22. I once landed a 23-inch carp on one of these minutae.

Actually, the hardest challenge a fly rodding carp fisherman faces is that of proper presentation. This begins *before* the cast, when the fish is first sighted. A careful, well-planned stalk must be executed to bring the angler to a proper distance and position for the cast. Easy going is the watchword here.

After one is prepared to cast, this should be done with as little movement and water disturbance as possible. A carp is extremely shy and great care is needed.

Any fly rod balancing a six-weight line is ideal for this type of fishing—a heavier line slaps the water too much. I use my regular seven and a half foot trout rod that throws a six-weight, double tapered line. The leader should be long and fine to match the size of fly used. Regular trout or panfish gear, from rod to fly, is the ticket for carp fishing.

The fly cast by the knowledgeable carper will land one to three feet in front of his target's nose. As the fly lands, it will often be detected by the fish and be sucked in. If the carp doesn't act aware of the imitation, an added enticement may be in order; a twitch of the line is the normal solution, a more drastic measure would be a slow retrieve.

Once a feeding carp sees a fly, there's more likelihood he'll hit it than any trout. That's saying a lot for a fish that is not generally considered a fly rod gamefish. As long as a carp is not spooked, is feeding and sees the fly where it can be easily taken, he will suck it in.

A carp is a deliberate moving fish. His rise is a slow sure take. Ejection of a fake is executed with the same characteristic coolness. This helps the light tippet user to set the hook without a lightning-fast strike which may prove too violent for the tippet. Strike quickly, but a split-second reaction is unnecessary.

Playing a carp is the same as any other large fish on light line: be delicate, but persistent. A carp's powerful runs demand a smooth reel with a light drag and plenty of backing. Don't plan on landing a twenty-six incher in three or four minutes . . . I have had some carp on for over an hour!

The challenge of the stalk and the thrill of the take and the fight are unique when blended together by the carp. One has a decision to make, though, when he has one of these big golden brutes tired and beached. Normally I release all fish I catch. I carry through with this bit of charity with any carp I haul in.

A lot of sportsmen would rather I kill the carp. The carp, however, provides me with the thrill I seek when he's alive. I have no desire to kill anything I do not utilize.

When viewed in the whole, a carp is a notable gamefish. I enjoy catching lunker-sized fish on tiny dries — any fly man does. Sometimes carp are the only *local* fish that fill the bill, but this is no apology . . . I enjoy carping. A carp is our golden gamefish and he needs more of the angling fraternity's attention. Let's give it to him.



After an absence of some 20 years, the author returns to a favorite boyhood fishing spot below the dam at Carlisle.

Return to Conodoguinet

by David R. Thompson

It's a mid-August afternoon and I don fishing vest and hip boots along the road just below the dam on the Conodoguinet Creek at Carlisle. I'm confident the creek is as good to fish as it was over twenty years ago when I frequently fished it as a boy. Confident, that is, until two pessimists parked within earshot maintain in authoritative tones that it's too hot to catch bass and moreover the fish won't hit until fall when the creek cools.

As I leave my car and walk upstream the conversation of the two angling experts fades away and is replaced by sound of water pouring over the long dam. A bait fisherman on the breast casts into the still, deep water above the dam while sitting on a log that I swear was there two decades ago.

I cast my spinner without a strike below this hardfished dam while the words of the pessimists slowly begin to haunt me. I agree with them about the warm weather, and admit that the dog days of August aren't often ideal for bass fishing . . . yet the creek is low and fairly clear and it *feels* as if fish are nearby, hiding behind the larger rocks and in the dark pockets between weed beds.

I must have confidence. It helps to remind myself that the state's record smallmouth was caught from this creek in 1937 by Ed Meadows of Harrisburg. That trophy taped 24½ inches and weighed six pounds two ounces.

As I visualize a bass of such proportions, there's a rush of air above me and a faint but familiar sound of wings. The waterfowler in me tenses when I look up and see a flight of mallards. The ducks remind me of the green-headed mallard drake I shot on the creek above Meadow Brook (west of Carlisle) that morning before school, and how I hardly felt the cold creep pour over the tops of my hip boots as I waded out to retrieve it.

Yes, in some ways the Conodoguinet had remained the same but soon I learned that, underneath the cosmetics, the creek had aged in ways that worry me.

I begin to feel better about my old stomping grounds and the prospects for good fishing after catching several Kodacolor sunfish and lively rock bass on the ultralight spinning rod. I fish below the entire length of the dam and arrive at the north side where a bush overhangs the water and the creek is shadowed and knee-deep. It's here that two smallmouth of about eight inches take the gold spinner and try to shake it by jumping. I admire their olive shade and release them. Maybe one will become a new state record. Wishful thinking.

An hour later I find that decent bass can be coaxed to hit a lure even on a sleepy August afternoon lulled by singing cicadas. It's rubber minnow

with red stripes that tempts them as I fish it slowly in waist-deep holes, giving it action by twitching the rod tip.

But, first the rock bass strike . . . soon enough are on the stringer for a fish fry . . . if I elect to keep them. They tug on the stringer attached to the vest loop. At one point I look down at them after casting the minnow when there's a tap at the end of the line. I set the hook, feel a fish, and set it again. A few minutes later, while the pessimists are awaiting cooler days to begin fishing, a tired thirteen-inch smallmouth comes close enough to grasp by the lower jaw. No giant, but a nice bass nonetheless. It feels good to be home again.

The same hole produces more action but I fail to land the "mystery" fish. Losing it leaves me feeling empty because judging by the strain on the rod and the solid feel of it the fish was a good one.

Marty Shepler of Carlisle asks about the fish when he wades up to me while his companions brother Bob and Matt Robbins, also of Carlisle, canoe upstream.

"I saw you lose it," he says. "I just lost one, too. It was a musky of about twenty inches . . . down at the next hole around the bend. I was using a small spinner when it hit, but it got off near the canoe."

I show him the smallmouth before he climbs into the canoe with the others and they return downstream, lured by the musky.

Muskellunge? During my earlier days cruising the creek by canoe or wading it with black, ankle-high sneakers, there were no muskies. I decide to ask Waterways Patrolman Perry Heath about the creek's fish population.

"You bet they're in the Conodoguinet," he says. "We've been stocking muskies there annually for the last ten years. They're raised at the Huntsdale Fish Cultural Station, and are almost a foot long when released.

"There aren't many muskies being caught in the creek because not many fishermen are fishing for them," he continues. "Those who are see them all the time, rolling like porpoises, at places like Good Hope Mill Dam and Willow Mill Park. A few muskies were illegally shot by archers near Orr's Bridge in Hampton Township."

Heath says the 'lunge are stocked in



The author's sons Bridger (left), 7, and Erik, 8, check the condition of their rock bass while wading and bait fishing the Conodoguinet. The creek is a good one for rock bass and specimens up to ten inches long are not uncommon.

the Conodoguinet from its mouth at the Susquehanna River upstream to Shippensburg. "I know they've seen them at the dam at Newville, too," he adds.

The possibility of hooking one of these predators gives the creek a new dimension that most anglers overlook. Like me, they consider the creek basically a smallmouth bass and panfish water. It's an excellent place to pursue panfish and rock bass of ten inches aren't uncommon. However, the smallmouth fishing, which was once good enough to produce the state record that has stood for 41 years, has declined.

"Fishermen are still getting nice smallmouth, but I believe the bass population in the Conodoguinet is likely to be in trouble in three or four years," Heath opines. He bases the prediction on the 1978 stream survey that "turned up a small percentage of smallmouth bass and many sunfish and rock bass."

He says, "The creek is loaded with members of the sunfish family, and there are also a lot of carp. Sunfish are actually predators that feed on small bass before they have a chance to grow and the carp destroy bass spawning beds."

However, such fish aren't the only enemies the smallmouth bass population confronts in the Conodoguinet. Perhaps the major obstacle is environmental damage caused by man.

"I've been here fifteen years and it was basically a good stream back then," Heath explains. "Now, there is more pollution from sewage treatment plants and storm water drains that empty into the creek. Then there's also sedimentation from farm ground. There are more homes being built, more land being blacktopped and the runoff goes into the Conodoguinet."

Consequently, sediment in the creek is severe enough to easily notice. I stirred up silt from the creek bottom with every step while fishing below Burgner's Mill one evening. Despite the pollution, the south side offers a nice stretch of smallmouth water that yields three barely legal bass plus some goggle-eyes.

I recall that not far downstream is the "iron bridge" below which a friend caught a seventeen-inch smallmouth on a hellgrammite when we were twelve. It was the biggest smallmouth either of us had ever seen, and I haven't seen a better Conodoguinet bass caught since that summer afternoon.



Below the remnants of Burgner's Mill the author caught several smallmouth such as this one in the ten-inch category, and a variety of panfish.

It was easier during those boyhood times to slowly pronounce the name Con-o-do-go-in-it, an Indian name, and relive by camping along the creek, the days when Redmen also lived there. In the mid-1700's there was a Shawnee village near the mouth of the Conodoguinet having the same name. The name, however, is a corruption of Gunnipduckhannet which means *"for a long way nothing but bends."* I found that to be true during a canoe trip from Carlisle to the Susquehanna River.

Indian artifacts have been found near the creek at Middlesex. Human bones that a history of Cumberland County says were found in the cave along the Conodoguinet at "Cave Hill" near Carlisle may have been the remains of an Indian, for it is believed that the cave was used as a place of refuge and temporary shelter by Indians.

The well-known cave extends for about 270 feet to where it branches in three directions. It was here in the "Devil's Dining Room" that the notorious David Lewis, "The Robber," born in Carlisle in 1790, fled to during his escape from a Carlisle guardhouse in the War of 1812 after being sentenced to death for desertion and double enlistment. After leaving this hideout on the bank of the Conodoguinet, he embarked on a career as a robber and counterfeiter

and became a legendary figure.

While some of the creek's history is romantic, it also played an important role in the development of the Cumberland Valley. It was harnessed for power in Colonial times and was declared a public highway in 1771 from its mouth to what is now Long's Gap Road.

Today, Letterkenny Reservoir in Franklin County is considered the start of the Conodoguinet Creek. However the book *"Conodoguinet Creek,"* by John G. Orr, which was read before the Kittochtinny Historical Society on May 5, 1909, states that its source is a spring on Jordan's Knob in western Franklin County, not far northeast of Fort Loudon. It travels down the mountains that make Horse Valley, through McAllister's Gap, and into the reservoir. From there the creek continues into Cumberland County, flowing along ridges that separate the slate lands from the limestone. These slate ridges, the history states, do much toward making the many bends that have given the creek its name.

The creek is stocked with trout from the reservoir down to the Cumberland County line. As it travels through Cumberland it becomes a warmwater fishery that includes suckers and eels. Waterways Patrolman Heath says the latter fish were stocked every year for about five years until four years ago.

I now realize that the creek offers more diverse angling and boating opportunities than I had supposed. "Canoeing is getting to be tremendously popular there," Heath tells me, adding that there are regulated power boating areas at Bair's Dam and another from the dam at Carlisle upstream to the North Middleton Recreation Park.

A stone' throw above the park is Waggoners Bridge, on Route 74. From there downstream to where the water deepens is the section that Ralph Shenk of Carlisle still fishes for smallmouth and panfish. And he still catches them — although, admittedly, the fish are fewer.

"It used to be excellent for smallmouth," he recalls. "There were scoured ledges to fish but now there's a lot of silt. I had a boat on the creek there for about 28 years. All the oldtimers out that way fished that area the first day of bass season and in the evening they'd have a bass feed. The following year there'd be plenty of bass again."

But that was many years ago. What about today? Doubtless the two pessimists who don't bass fish in August would write the Conodoguinet Creek an epitaph and consider it a "has-been." That, however, would be wasting the creek's potential when it should be protected and gradually restored.

Although the Conodoguinet still offers good angling, its deteriorating condition needs to be recognized as being one of the major problems resulting from disturbing land without taking adequate conservation measures to protect waterways. The sedimentation and reduced bass population are signs that the creek is ailing. Learning this dampened my homecoming to the Conodoguinet Creek — the winding waterway that needs nursing back to health.

Not just a "summer place," the Conodoguinet offers good late winter sucker fishing at the mouths of its tributaries.



A-Sailing we will go . . . or will we?

being a facetious bit of foto funnery by j.f. yoder

There's a little sailor in each of us. In some of us, *very* little; others, even less. Still we all want to try it.

On a trip to Lake Wallenpaupack last summer, I had the opportunity to witness a would-be sailor about to embark on what appeared to be a very perilous voyage. However, our subject eventually "found himself" and became master of his vessel, rather than vice versa, as expected.

A telephoto lens brought the action back to the film. But, out of hearing, I had to imagine (lightheartedly, of course) any conversation which might have ensued. Feel free to do the same.



"You're sure you've sailed one of these before?"



"This oughta be good . . . bet he capsizes!"





"The lake's straight ahead . . . now watch that boom, and good luck. Remember, the lake's out there . . . ."

"Rid of that bossy babe at last! I can get some sailing done now . . . if I can get out of this anchorage!"





New technique takes an old favorite —

Walleye Trolling

by Bob Chandler



Walleye fishing in Lake Erie was very good in 1977; the forecast for 1978 was even better. The Walnut Creek Access Area was very popular because the fishing west of Erie was usually good — sometimes excellent.

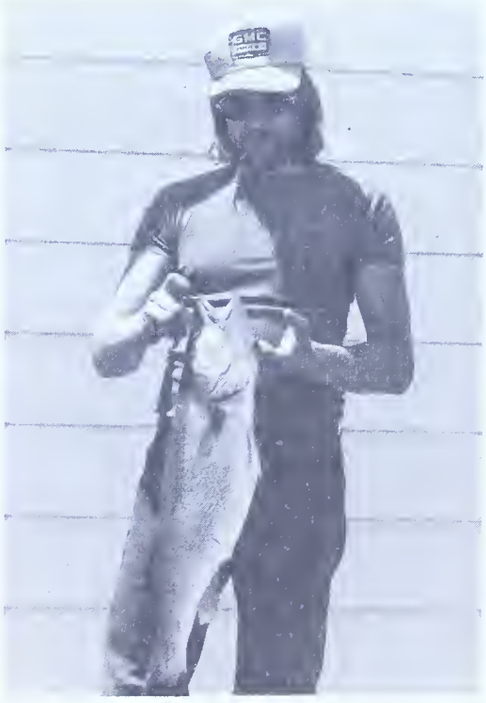
For years, the way to take walleyes, or "yellow pike," as they are often called locally, was to use heavy sinkers, a crawler harness, and a lively night crawler. About three years ago, a few good plug anglers decided to try to find a better way. The lead, harness and crawler is still a great rig, but on certain days the plug pullers run up bigger scores.

The old way had paid off for many years and some anglers refused to give in. The plug pullers, or trollers, are gaining converts, though, in good numbers each year. Trolling with the crawler method, your boat had to go very slow — as a matter of fact, *drifting* speed was best. Larger boats had motors that would not slow down enough for crawler fishing and several anglers who once would not attempt to take on walleye fishing have since learned to use plugs and are now doing very well trolling them. Trolling with those plugs which have proved to be successful, your boat speed can be between five and six miles per hour. This adds a new dimension for the larger boat owners. There are now many inboard/outboards being put to good use.

As the plug trollers became more successful their numbers grew. You could tell by the speed of the boats who was trolling crawlers ... who was trolling plugs. One evening a boat came up to us and the skipper told us we were trolling too fast. He was trying to be helpful, but he didn't know we had thirteen walleyes in the cooler! He followed us for several hundred yards and saw us add three more nice fish to our catch.

We went in around nine thirty and the friendly skipper asked to see our fish. The total count — and the *size* of the fish — made a believer out of our new friend. After spending an hour or more telling him how, when, where, and on what, he became one more convert. A couple nights later he waited for more instruction as he was not catching fish using our methods. We went over the fundamentals for him one more time.

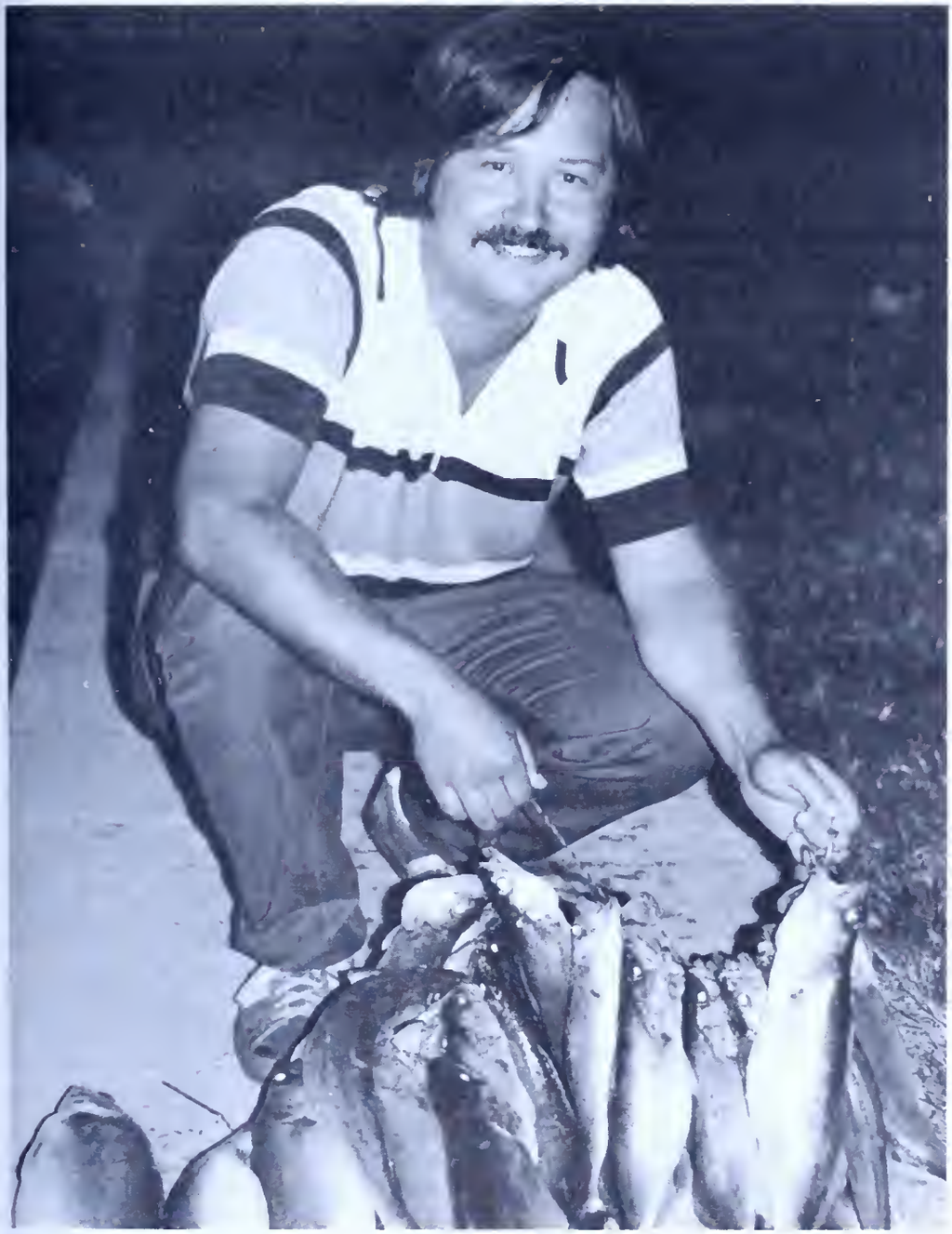
Max Hemmis, above, and Russ Kamholtz, below, show fine Erie walleye catches.



First, you have to determine how deep the fish will be. Second, you must use a plug that will stay near the bottom — whatever the depth might be. Third, your speed is determined by the action of your plugs. Fourth, you can never use a swivel — only a snap. This aspect should be explained.

Any plug that has a lip should not twist your line if trolled at the proper speed. It serves no purpose to use a swivel in front of plugs when a snap allows you to change plugs just as easily. A swivel in front of plugs when a snap allows you to change plugs just as easily. A swivel has a tendency to take away some of the action built in by the lure maker, so why reduce the action for no good reason? The only time a trolled plug will twist your line is if you let line out or bring it in against a slipping drag — even then the plug is not the culprit. Note: the very popular "J-Plug" should not be used with even a snap. The plus is designed to be knocked up your line by a striking fish. It should be tied directly to the hook harness so the plug may pass up the line.

Colors should be chosen with regard to light penetration. The old practice of dark-to-dark, and bright-to-bright usually works. In addition to these basic ground rules other factors should be taken into consideration. Structure should be fished as much as possible.



Twenty-six walleyes from two to six pounds are reason enough to smile, but Dave Gauriloff, Jr., caught them all in three hours of trolling!

An inexpensive depth recorder is our most precious possession. Gravel bars, points, and uneven bottom areas abound — if you can find them. I don't care to see fish on my recorder — all I ask is a good "picture" of the lake bottom.

Dave Gauriloff, Jr., George Simon, Bob Sewell, Jack Groters, Tim Small, Rudy Orman, Mario Cocuzzi, and John Grode are just a few who have learned and mastered the plug trolling system. This does not mean that even they always do everything right — there are too many variables for anyone to *permanently* "master." The wind may change and the fish may move off the "normal" stations — the structure stays, but the fish might move deeper than twenty-five feet.

Jack Groters caught over fifty walleyes using a "Pink Lady." Our plugs were running from six to twenty-five feet down — but the fish had moved out into forty feet of water. Jack used the trolling plane to take his spoons down to the fish. He was thinking; he was rewarded.

Finding the depth where the walleyes are congregating is very time-consuming. The best way to find them is to fish from good shallow water structure out to good structure in deeper water. Don't waste time fishing over areas with no structure. We use the Bomber "Speed Shad" in six to ten feet of water. Next we use the medium-running "Model A's" for twelve to fifteen feet. Then, the deep-running "Model A's" and the Storm "Hot-n-Tot's" for down to about twenty feet. To get down to about twenty-eight feet takes the extra-deep, size 8 "Model A's." Using a trolling plane, we use Luhr Jensen "Flutter-spoons" and "Rattlesnakes," and can fish down to eighty feet deep.

For all but our deepest trolling, we use line no heavier than ten-pound-test, often using six- or eight-pound-test. To go deeper, we use a #0 "Pink Lady" with a small spoon tied one rod length (four to six feet) behind. You may use heavier line here because the trolling plane will pull hard. We use an even heavier line if we use a #1 or #2 "Pink Lady," because they dig in and pull much harder than the size zero.

When using the trolling planes, your boat speed must be much slower than when you are pulling plugs on "flat lines." Most of the deeper caught fish were in from thirty-five to forty feet of water. Remember: they, too, were *on the bottom*. To determine how much line to let out, simply let it peel off until you bump bottom. Then, reel in a half-dozen turns until you no longer bump — the trolling planes may trip if you bump too often.

We started catching the walleyes last year around the first of May. But the good-to-excellent catches were made in July and August. Most of the early fish were caught from Presque Isle Bay, or off the creek mouths at night. The Bay walleyes hit when the water temperatures reach fifty degrees, and even then they are generally caught from warmer pockets of water.

There is a special breed of anglers who climb into their chest waders and fish nearly every night the wind will allow. They don't usually run up big scores, but the fish they catch are very large. Most walleyes that are caught at night are over five pounds.

The best places to fish for walleyes in Lake Erie change like the weather. We have established some sort of pattern over the last few years. Presque Isle Bay, early (May and June), the west side of Erie, midsummer (July and August), and the east side of Erie, later (August and September). There is no size or "creel" limit on Lake Erie walleyes, but unless anglers are very hungry, they release walleyes under fifteen inches, letting them live to spawn at least one time to insure the future of the species.

Each month, Fish Commission offices receive many requests for maps, "fishing" and "boating." No maps of any sort are presently available from the PFC. Maps which are available from other sources are listed and described below.

Aids to Anglers & Boaters —

Maps you can, and cannot obtain, their sources and prices —

PENNSYLVANIA STREAM MAP

This is the most up-to-date and complete map which shows all streams, rivers and lakes of the Commonwealth. Measuring 36 × 86 inches, this map was first published by the Pennsylvania State University in 1965. It shows locations of villages, towns and cities, but does NOT SHOW any roads or highways. Available in two forms — flat (rolled in mailing tube) or folded (mailed in envelope). Indicate which type you want when ordering. To obtain this map, write (and enclose $1.06 in check or money order payable to Pennsylvania State University) to: MAPS, P.O. Box 6000, University Park, PA 16802.

COUNTY MAPS

One of the best maps available to sportsmen is a series of county maps — known as Type 10 County General Highway Maps — published by the Pennsylvania Department of Transportation. Each map shows all roads open to public use, including state, county, township and forest roads as well as all lakes, rivers, streams or other waterways within the county. Measuring 36 × 49 inches, these maps are produced on a scale of 1 inch equals 1 mile. The maps cost $1.06 per county. Send check or money order (payable to Pennsylvania Department of Transportation) to: Publications Sales, Pennsylvania Department of Transportation, Forms and Publications Warehouse, P. O. Box 134, Building 33, Harrisburg International Airport, Middletown, PA 17057.

TOPOGRAPHIC MAPS

Experienced outdoorsmen have used "topo" maps produced by the U.S. Geological Survey for many years. These maps are the only type of map that shows the position and shape of the "landforms" and, when used in conjunction with a compass, they can keep anyone from becoming lost, regardless of how far they might walk away from roads or other landmarks of civilization. With a little practice in reading contours, you can determine the height of each hill, the depth of each valley, the location of remote brooks or ponds, or even the shape of the bottom structure in your favorite "fishin' hole."

Topographic maps are published and sold by the U.S. Geological Survey. To enable you to select the maps of the areas you wish to explore or travel, indexes showing the topographic maps for each area of the state are available free on request. Write: U.S. Geological Survey, Washington, DC 20242. These indexes indicate the area covered by each quadrangle map, its name, scale, and year of survey. They also contain addresses of local map dealers and federal map distribution centers.

For further information of available maps and prices, write: Eastern Region Map Distribution Center, U.S. Geological Survey, 1200 South Eads St., Arlington, VA 22202.

RIVER MAPS

A series of 10 maps of the *Delaware River* is available at a cost of $4.00 from the Delaware River Basin Commission, P.O. Box 7360, West Trenton, NJ 08628. The maps show physical characteristics of the river from Trenton to Hancock, NY, including stream flow, channel depths, riffles and other hazards, and recreational facilities (launch sites, campsites, etc.). A "river boat trail" map of the *Allegheny River,* showing camping and access sites, was produced several years by the Western Pennsylvania Conservancy, 204 Fifth Avenue, Pittsburgh, PA 15222.

LAKE STRUCTURE MAPS

Maps of lakes in Pennsylvania which show "structure" (depths, bottom contours, drop-offs, etc.) are *NOT AVAILABLE FROM THE FISH COMMISSION,* or from any other state government agency. A few commercial firms have produced this type of map for *some,* but not all lakes or reservoirs in the Commonwealth. For information on which maps are available and prices, write: International Map Company, 595 Broad Avenue, Ridgefield, NJ 07657. There is also an excellent map available of Lake Wallenpaupack. For information and price, write: Lake Wallenpaupack Fishing & Travel Map, P.O. Box 391, Hawley, PA 18428. Navigation maps for Lake Erie, showing water depths, navigation aids, and other features, can be obtained from: U.S. Lake Survey, 630 Federal Building, Detroit, MI 48226. Another privately produced Fishing Map is also available for Lake Erie. It shows bottom contours and is overlaid with grid lines forming one-mile squares. The grid is designed to help salmon fishermen locate schools of fish during the summer and early fall when they are found several miles offshore. This map can be ordered, at $3.00 per copy, from J.E.T., Inc., Box 8147, Erie, PA 16505.

MAPS NO LONGER AVAILABLE

COUNTY FISHING & BOATING MAPS: A series of 8½ × 11-inch maps, published by the Fish Commission in 1970 is **out-of-print** and will not be reissued in the foreseeable future. Another series, known as the "Waters-Highway Maps" of each county published in 1958 by the Fish Commission, is also **out-of-print.**

BOATING-FISHING EDITION, OFFICIAL STATE TRANSPORTATION MAP: This special edition of the state's official transportation map, published by the Fish Commission with the cooperation of the Pennsylvania Department of Transportation, will not be printed this year. Earlier editions are now **out-of-print.**

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Bass bite well early in the season because they fasted during the just-ended spawning period. They bite indifferently in the middle of the season because of high water temperature. They will feed hungrily again late in the season because they are building up fat and vitality for the winter period.

An area where a rocky shoreline extends down steeply into the water is a good fishing spot in a lake or big river. Bass in particular like to patrol the underwater sides of the rock. The angler can position his boat so that he can make long casts to both the right and left, close to the rock, then work his lures at various depths.



In retrieving a wet fly, make only slow pulls on the line, and the fly will stay deep. A sharp jerk of the line will draw the fly to the surface where it will not be as effective.

Even in the shallows, fish very carefully if there are rocks in the water. A relatively small rock may provide sufficient shelter to attract a good trout or bass.

Trout can be caught on spinners, but only the smallest blades should be used. In fact, no spinner is too small for trout angling.

A pork strip, whether real pork or plastic, can be made more effective by splitting it almost back to the hook. This will make the "legs" longer and capable of a better fluttering action.

Let the current help you in fishing a stream with a spoon. Cast across the current, then ease tension on the line, and the spoon will swing down and back across the current. Fish it close to the bottom all the way. During hot days, when bass seek deeper cover, bouncing the spoon across the bottom, as if it were a jig, is effective.

Fish get wary and nervous under angling pressure. Big lures fished with a heavy hand will frighten them; but, delicate use of small lures on light tackle usually will bring action.

Near season's end, when the water gets very low and trout are seldom seen rising, trouting is tough. But the fish are there. They are in hiding and reluctant to show themselves. A fly cast delicately to such hiding places can get the attention of a trout even if it is not actively feeding.

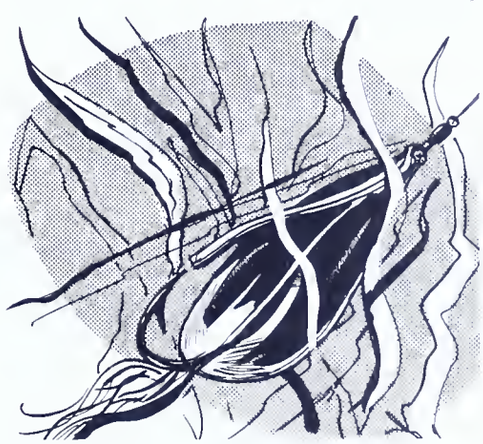
Floating position is important in a bass bug made of cork or plastic. The bug should float either flat on the water or with its tail down and nose up. It will then produce better action and also be easier to lift from the water at the end of the retrieve.

Northern pike are tough and nasty-tempered fish, but they also are shy and easily spooked. The shadow of a boat, an anchor plopped into the water, or sometimes just the flash of a rod will put the pike on the alert and make it shy away from lure or bait.

A bedraggled fly or battered plug some-times will take more fish than a new lure.

Lures that imitate frogs are most effec-tive in the small sizes. Most gamefish do not try to eat many big, active, real frogs.

Weedless lures slip and slide through heavy weeds and other obstructions in the water. A spoon that rides with the hook upward, with a weed guard covering the point of the hook, is one of the best. The weed guard must be kept in exact position to cover the hook point. Check the guard after every contact with debris in the water or with a fish.



An inviting target for the angler is a log or tree trunk that has fallen across a small stream. It is almost a sure bet that fish will be in the area since the log provides shelter. Lure or bait can be cast upstream of the log and allowed to float down to it; or, the dry fly devotee can take a position downstream of the log and cast his fly close to it.



Hook hones are not just fishing gadgets. Needle-sharp hooks are essential on jigs, plugs, spoons and spinners. A few strokes with a hone will improve the penetrating power of any big hook.

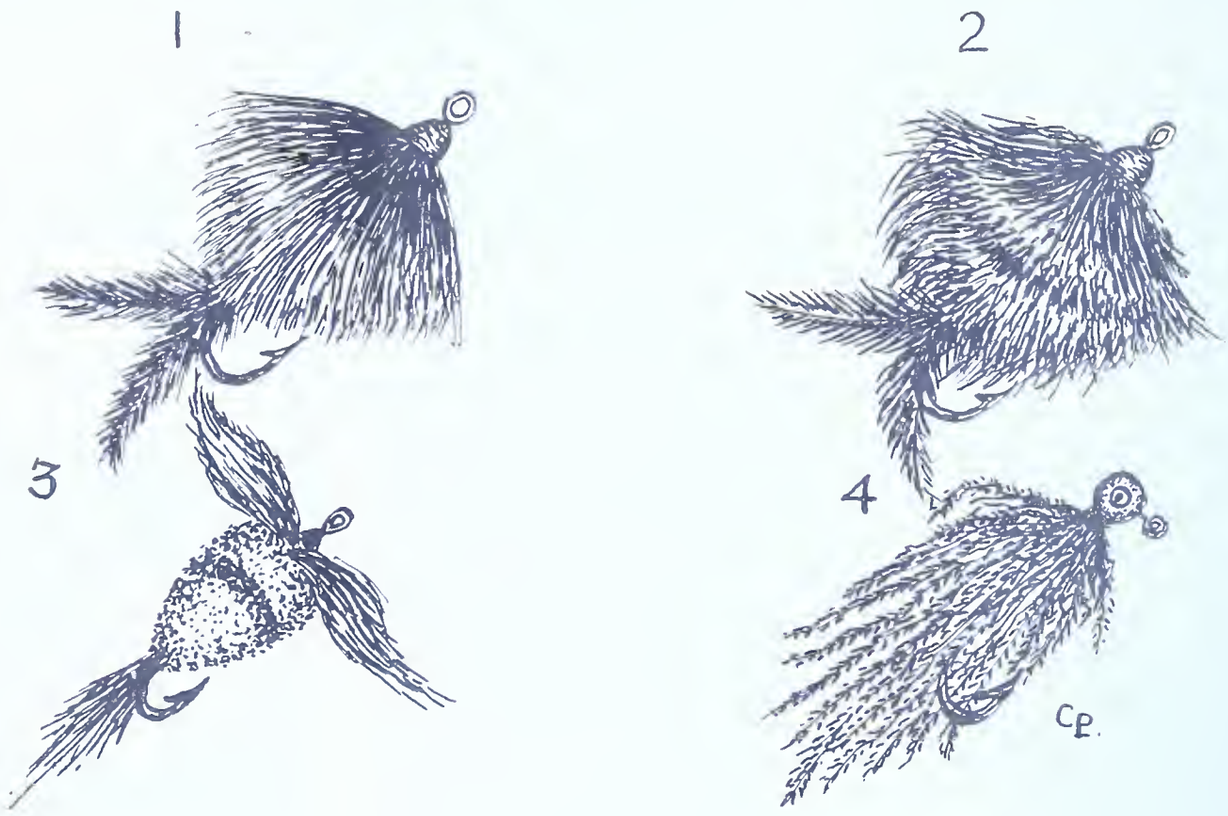
Bass often feed in heavy riffles, provided there are pockets of water that is deeper. A good lure is a big bass bug made to dance and jitter over the surface and across the current.

Bright colors are favorites in bass lures. Red, yellow and white are the top three for most anglers. But more somber colors, such as brown or even balck, also attract bass.

Trolling is possible with a stiff fly rod if the lures are spinners or small spoons and the trolling is done very slowly, ideally from a rowed boat or a canoe.

Big artificial nymphs, on hooks as large as size 8, are an attraction for some anglers. They look buggy and real. They sink quickly and are not difficult to "feel" as they travel in the water. But the fact is that most natural nymphs are best imitated by patterns tied on hooks in size 12 or 14.

Use the smallest possible snap swivels or snaps. Even the tiniest that can be bought is far stronger than a line, and it is not so likely to spoil the action of a lure attached to it.



Bass Lures Old & New

by Clayton L. Peters

illustrations by the author

When I entertain a group of fly tyers in my workshop the conversation usually changes from tying procedures and material used to the various aspects of actually fishing the lures.

At one such recent session I was asked what became of the old Mack's Minnow Bug that I had used so successfully for bass and more especially walleyes. My answer was that I still use it and it is one of the best lures in my tackle box.

During the past several years, competition has been keen among the lure manufacturers and the market is flooded. With the exception of a very few of the newer lures I still stick with the old tried and proven patterns. In addition, I suppose I am somewhat of an egotist. I like to take bass and walleyes on lures of my own construction. There is a lot of satisfaction in taking fish on lures designed by one's creative ability, or even copied from a highly successful pattern. Then too, there is that tackle-tinkering instinct that permeates all of us that must be satisfied. We are all creatures of habit and are sometimes adamant and not easily changed in our ways. This applies equally well to angling methods we learned in our adolescence.

My first bass and walleye ventures were with the fly rod, a *steel* one at that. Later, I had a bamboo rod built to specifications for handling heavier type lures, such as shown in Figures 1, 2, 3, and 4. That worked out fine. Then I met Charley Fox with his short rod and casting reel and due to his successful approach and fish-taking ability I was sold on that method. In fact, it was Charley who introduced me to the minnow bug, back in 1932. It is still a heck of a good lure today. The long rod was temporarily shelved in order to master the intricacies of plug casting. Charlie also discovered, about that time, that small plugs were less disturbing to the bass and more productive, so I stocked up with small homemade plugs. See, I was a copycat. But I caught bass and walleyes.

When I started spending a good bit of time on Shermans Creek in 1940 I carried both the long and short rods. There were times when one of the two was more appropriate for the occasion and I changed as necessity demanded.

For many years I carried both rods in the car. Then wonder of wonders, along came the newfangled spinning rods and reels. It seemed to be simplicity in itself. No more backlashes and complete accuracy if simple directions are observed. Lighter lures could be cast by the simple expedient of carrying an extra spool of light, say two-pound-test, line. You guessed it, I had to have a spinning rod. I studied them long and hard. I finally settled for an ultralight outfit with two spools of line. One four-pound-test for average fishing and one of two-pound-test for light

lures.

In the illustrations I have shown some of the standbys that take fish under most conditions.

Figure 1 is a fly Weber's carried for years, they called it "The Blackbird." It was tied of the largest black hackles obtainable and two flared crimson hackles for the tails, tied on size 4 and 6 hooks.

Figure 2 was similar but was tied of three large hackles, a ginger, a brown and a black, tied on in that order. The tails are flared badger hackles. These two flies are deadly in the Juniata river especially fished with a No. 2 copper spinner attached. Too much cannot be said for the fish taking qualities of these two flies. Peculiarly, neither silver or gold spinners work equally as well as the copper version. Why? I don't know!

Figure 3 shows one of a variety of deer hair bugs, that when slightly popped produce some smashing strikes. There have been so many descriptions offered, showing the procedure for tying deer and elk hair bugs that I shall not go into that. But if your patience permits, tie a few "baby" deer-hair mice. Make them small and use dyed deer hairs. The exact shade of pink is obtained by using flesh colored Rit household dye. Bass simply can't resist them.

Figure 4 is a newer creation made by Warren Wolfe, a Selinsgrove. It is a ⅜ ounce or smaller jig tied on a size 4 or 6 hook. The body is tied of yellow yarn almost completely covered with white marabou. A heavy topping of pink marabou finishes off the body. The lead head may be painted either orange or white.

Recently, Warren and his fishing companion, Bob Ludwig, took 44 Bass from the Juniata in the vicinity of Newport from 9:00 a.m. to 2:00 p.m. The sun became unbearable and they were forced to quit. This proves two things: the versatility of the fly and the presence of a large number of fish. In fact it is the only lure they use unless they want to experiment with other patterns. There is a lot to be said for the jig with its lead head, be it ever so small. The darting weaving action is built in and the fish are excited by it.

Figure 5 is the Mack's Minnow Bug I mentioned earlier in this article. It is an odd looking contraption but is death to walleyes. It is also on the heavy side, which accounts for its ability to dredge the gravel which walleyes seek. The head is 7/16 inches across, flat on the bottom and rounded on top. Behind this grotesquely large head, gray deer hair is tied on rather heavily and flared back. It can be fished with or without a pork rind or rubber attached to the hook. Here, too, a copper spinner is tops.

I once saw Charley Fox catch six walleyes on six casts at the wildcat rocks above Amity Hall with the Minnow Bug. That was in 1932 and you can be sure it is as good today as it was then. I caught walleyes below the Fabridam at Sunbury last year on the same bug.

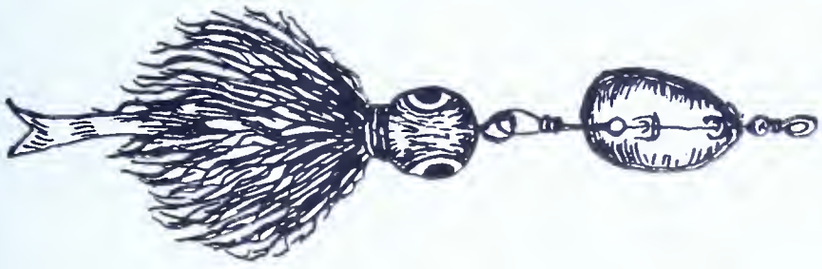
Figures 6 and 7 show the small Bass Oreno and River Runt plugs — each two inches long. There is no question but that either of these will prompt smallmouth bass into striking. They are consistent forage for the smallmouth and seldom fail.

Figure 8 shows the Devon type minnow that for many years was imported from England. It comes in several sizes and in either silver or gold finish. Being a tapered hollow tube with propeller blades attached, it is designed to spin when it is retrieved. I made many of these using small diameter copper tubing and having them either nickle or brass plated. The smaller sizes are equally effective for trout.

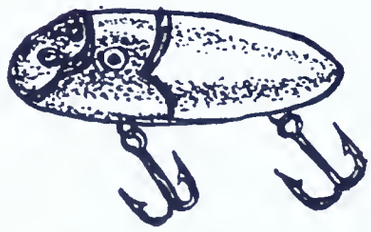
A very good Devon type minnow can be made from large goose quills. The quill is cleaned of pith and the wire with hook attached is run through it. The rotation blades can be inserted in saw slots and permanently attached with ambroid cement. For this type a snap swivel must be used for rotation.

Today the array of plugs and lures displayed in the tackle shops is dazzling. It seems that some of the more recent lures are of the Rapala type, both slim tapered and hump back, to take bass consistently. The Rebel minnow has worked well for me especially for walleyes, but I like to spray the belly section with fluorescent orange. The fish like it better that way.

I don't pursue bass and walleyes actively until after Labor Day and then I rely, for the most part, on the old tried and trusted lures here described.



5



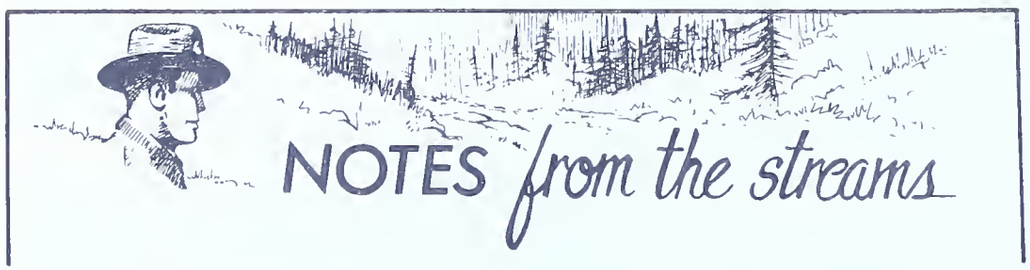
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7



8



NO "WALLFLOWERS"!

I once observed a young lady for a half hour going through all the motions of casting and retrieving a rod, baiting a hook, everything a fisherperson does — except *fishing*. She was obviously being photographed. It turned out that she was a model doing a publicity piece on fishing. So, today when I observed two young ladies on the shores of the same impoundment sitting with a fishing rod in front of them for hours and not touching it I wasn't surprised at all at their answer to, "How's fishing?"

They said that they were not fishing — *they were trying to get a suntan,* but they knew fishing season was in and everybody else at the lake would be fishing. So, rather than have everybody look at them like they were strange, they took a rod along . . . and there it sat: no line, no hook, no bait . . . just a fishing rod. They weren't catching anything but some "rays," I guess.

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

"SMILE . . ."

While working at the Fish Commission's recent EXPO 79 which was presented at the Wyoming Valley Mall in Wilkes-Barre, we had a small, very realistic looking rubber snake rigged up on a display table with other mounted snakes, so that when a spectator got a little too close, we could make it jump with the aid of a piece of almost invisible monofilament fishing line.

One persistent gentleman kept poking his finger toward the snake, only to take a jumb backwards every time the snake "struck out." He kept telling me that he knew we must be playing a trick on him, and that he thought we made the snake strike "with the aid of a magnet."

Taking off my dark glasses, I asked the gentleman to take a good look at me to see if he recognized me. He remarked that I "sort of looked familiar to him."

I then replied, "I am Allen Funt," then pointed to a picture on the wall behind me and stated, "You are on Candid Camera."

To this, the man let out a yelp, "You got to be kidding!" Then after taking a good hard look at the picture on the wall he started to walk down the corridor, laughing and yelling back to me, "I knew you guys would get me some day."

Somewhere in Luzerne County today there is a man telling his friends about the time he got *"caught"* on "Candid Camera."

Claude M. Neifert
Waterways Patrolman
N/Luzerne County

"HAVING A GOOD TIME"

While returning home from patroling Muddy Creek one day, I crossed many of those small bridges that cross streams usually too small to have names. As I crossed one of these bridges I noticed two small boys about 8 years old fishing at the edge of the bridge. Since I thought this to be an odd place to fish I stopped to see how they were doing. They immediately told me they were doing "OK" and that they hadn't caught any fish yet — but that didn't matter since *they were having a good time.* It immediately crossed my mind that an alarming number of adult sportsmen could take a lesson from these two small boys. It seems these two small boys learned a lesson some people never will.

Ronald L. Hoffman
Waterways Patrolman
S/York County

GOOD SPORTSMAN . . . POOR SPORTSMAN . . . OR THIEF?

A friend of mine who helps me on all my stockings related this incident to me. The first morning of trout season this year, he saw a youngster break his rod and reel and was sitting along the bank of Big Deer Creek. He asked him if he wanted to use one of his rods and the youngster said, "Yes." He gave him his fly rod, but he couldn't use it right, so he gave him his new spinning outfit. The youngster agreed to bring it back "in a couple of hours, days, or years." Leo seems to think the latter, as he *still doesn't have his rod back yet!*

Gerald T. Crayton
Waterways Patrolman
Allegheny County

"SHORTY"

While fishing at Promised Land Lake in late February, 1979, Mr. William Renninger, of Boyertown, caught a seven-inch yellow perch which had been tagged in with an Atlantic Richfield tag. According to our records, the perch was tagged in May, 1968 and was 7.3 inches long at that time. In almost eleven years that fish *had not grown one inch,* which proves that the larger fish are not necessarily the oldest.

A past Fish Commission survey indicates that a seven-inch perch is about four years old. Assuming that this perch was at least four years old when it was tagged, when it was caught it could possibly have been fifteen, if not more, years old.

This yellow perch didn't set any records for growth, but it may have set a record for longevity. The Atlantic Tagging Program was discontinued ten years ago, but some anglers like Mr. Renninger, are still returning the tags. These are of great interest to our biologists and are helpful in determining growth rates and longevity of fish in some of our waters.

Craig W. Billingsley
Area Fisheries Manager

QUIPS & QUOTES —

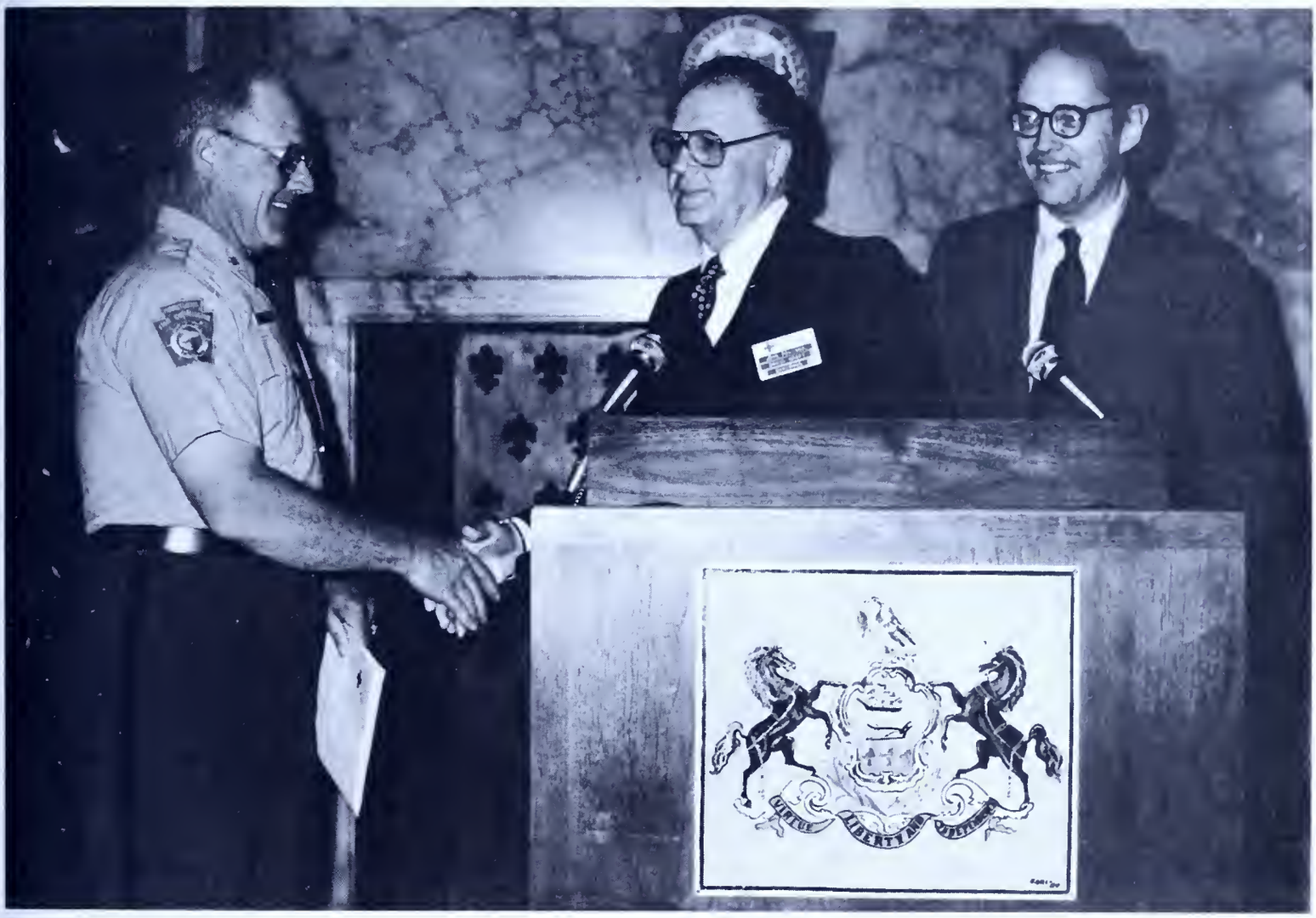
The students from Kane High School and School Street Junior High of Bradford have been doing a great job helping with the fish stocking this year. This assistance leads to some amusing *"Stream Notes."* En route to stocking Kinzua Creek on a snow-covered morning one young lady asked, "Do we have to touch them?" Another dumped a bucket of fish in the water and softly said, "Goodbye!" Still another exclaimed, "That one's swimming the wrong way!" I said, "You mean it's going backwards?" Blushing she pointed to a small tributary stream about a foot wide and remarked, "No, it's going that way and the others are going down!" On another stocking an elderly man expressed the opinion we weren't spreading the fish out enough. To appease the gentleman I jokingly told the kids, "Okay! We're going to put two fish behind every rock!" You guessed it! There stood a lad out in the stream behind a huge rock counting, "One, Two . . . !"

Don Parrish
Waterways Patrolman
McKean County

DIDN'T GET THE WORD

As most fishermen know, the creel limit on lakes was increased from six to eight trout. On the opening day of trout season, Waterways Patrolman Barry Mechling

Waterways Patrolman Lee F. Shortess Receives Red Cross' Highest Honor —



WATERWAYS PATROLMAN SHORTESS is shown receiving congratulations from John Polivka, Small Craft Chairman, Red Cross Harrisburg Chapter, after receiving award from Governor Thornburgh and Polivka. It was Shortess' prompt action that revived five-year-old Linda Palm after the youngster had been pulled unconscious from the Susquehanna River. The Citation read:

"On September 7, 1978, Mr. Shortess, trained in Red Cross first aid, was attending a meeting at a boat club when a woman came to the door saying a five-year-old girl had fallen into the river. Arriving on the scene, Mr. Shortess found that the victim had been pulled from the water, but she was unconscious and had neither pulse nor respiration. Mr. Shortess began mouth-to-mouth resuscitation while others provided other life-supportive first aid measures. Soon the victim responded and was taken to a hospital. Without doubt, the use of first aid by Mr. Shortess saved the victim from death by drowning.

"For this act of mercy Mr. Shortess has been named to receive the ***Red Cross Certificate of Merit.*** *This is the highest award given by the American Red Cross to a person who saves or sustains a life by using skills learned in a Red Cross first aid, small craft, or water safety course. The Certificate bears the original signatures of President Carter, Honorary Chairman, and Frank Stanton, Chairman of the American Red Cross.*

"This action exemplifies the highest ideal of the concern of one human being for another who is in distress."

---

observed a fisherman catch six trout at an area lake and put them on his stringer. After catching his seventh trout, this individual carefully looked around, then *hid* the trout in his vehicle.

Anthony Murawski
Asst. Regional Supervisor
Southwest Region

BAD DREAM?

Deputy Waterways Patrolman Sobonya and I were conducting routine boat patrol one evening on Glendale Lake and I mentioned what a beautiful night it was. Well, so much for that! It turned out to be just the opposite for me due to the following chain of events: a gust of wind came along and blew off my hat into the darkness of the night; a light bulb burned out and as I went to replace it with my spare bulb, it did not seat properly and popped out into the darkness of the night and into the lake; and, to top it off, we had a short in the wiring system and this caused a fuse to be blown. When it rains it pours!

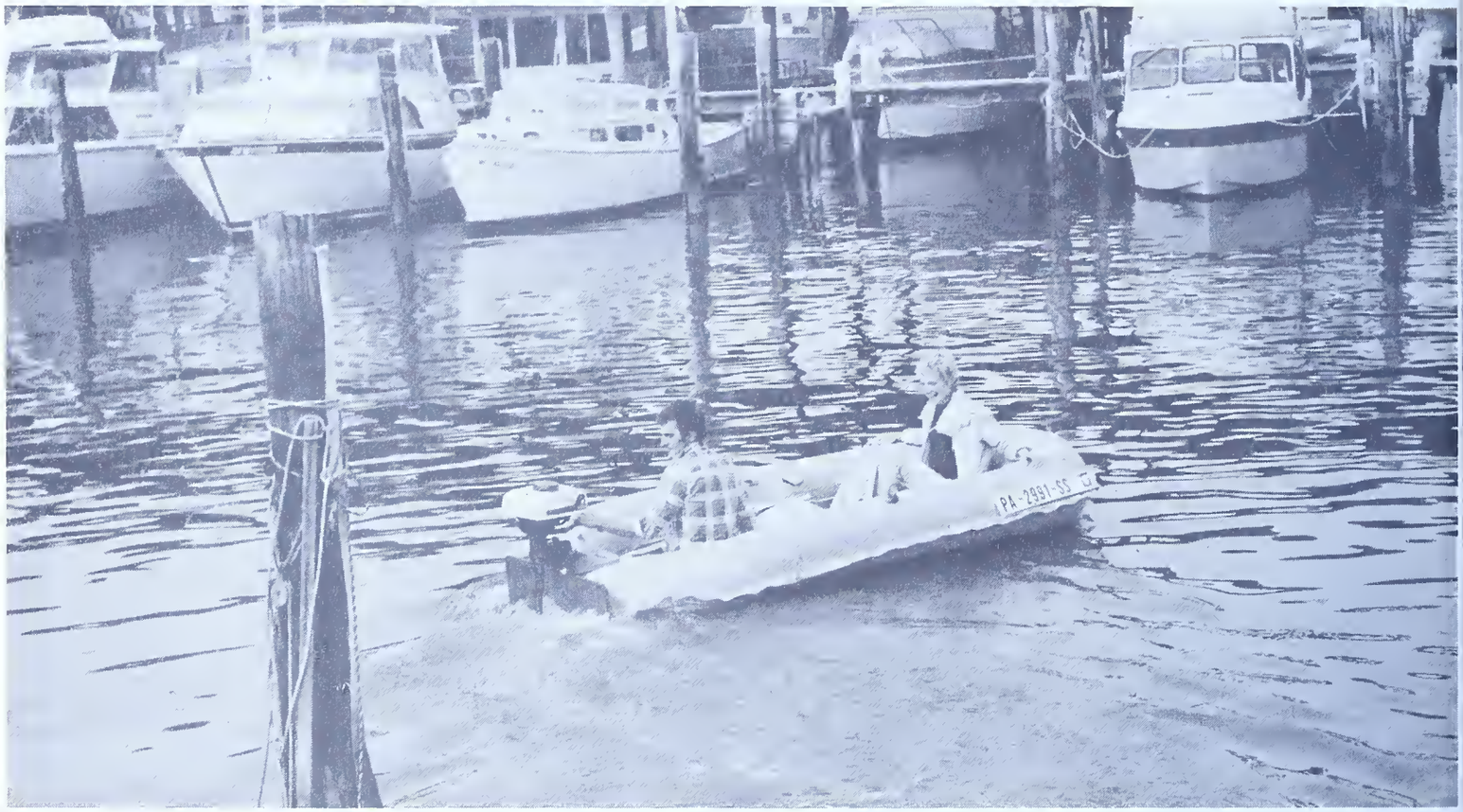
Robert L. Kish
Waterways Patrolman
Cambria County

NOT SO GREAT!

Deputy Floyd South stood by a large tree and watched two men fishing in a wired area (Fishing Prohibited). Both anglers had just caught and creeled a trout. The man on the right looked toward his partner on the left and remarked, "Man! This is great!" The friend looking to his right, and observing Deputy South replied, "Oh yeah! Take a look over there and you won't think it's so great!"

Don Parrish
Waterways Patrolman
McKean County

The Inflatable . . . is it right for you?



Ashore & Afloat

by Gene Winters

There has been a mushrooming interest in inflatable boats lately — not surprising because there is probably a little of Jacques Costeau in all of us. Besides, for apartment dwellers, nature lovers, or those short on garage or storage space, an inflatable makes a lot of sense, especially the new generation of models.

Today's inflatables are a far cry from the pontoon-type life rafts used in World War II. They were made of rubber-coated cotton and had a continuing tendency to develop leaks in short periods of time. Today, wonderful new synthetic materials have given strength, ruggedness, safety, and practicability to the inflatable as a means of recreational sport. The new breed is made of tough vinyl, or high-strength nylon, and is often coated with one of the synthetic rubbers — such as neoprene or DuPont's Hypalon® in a special lamination process. They can be banged and crashed into rocks, jumped up and down on, plowed into docks and pilings. While not totally indestructible, they can take as much abuse, perhaps even more, than a "hard" boat of equal size.

Admittedly, there are still a lot of inflatables being sold that fall into the category of toys and novelties and we should automatically exclude these from consideration. Personally, I wouldn't, as a first requirement, even look at anything under six feet in length unless it were intended for a backyard wading pool. Next, I'd only purchase one that carried the Boating Industry Association (BIA) seal and with it, a capacity rating in pounds and/or persons. (Allow 150 lbs for *each* person, regardless of age, size, or weight — it gives you a safety factor.)

What are inflatables good for? A lot of things: exploring, swimming and scuba diving, fishing, camping and backpacking trips, skiing . . . a lot of uses. There's little doubt the better quality, well-built ones make excellent utility/sport boats with all sorts of application. They can be paddled, rowed, sailed, or even powered. (Don't exceed their horsepower rating.) They free you; you can forget storage problems, rental boats, tow trailers, and slip expense. Your "marina" is a closet, car trunk, roof rack, or backpack. Easily stored, easily carried, they provide "instant" water transportation.

The general type "rubber dinghy" still somewhat resembles an oversized and slightly distorted innertube. This type runs about 6′–10′ in length, weighs 50–75 lbs, and may often be equipped to mount a 1½–4hp outboard or an electric motor with an inflated or wooden transom provided.

The sports type, as well as the *really big water* models, are typically over 12′ in length, take outboards as high as 85 hp, are fast and can turn on a dime. They often have a wooden transom, floorboard, and keel stiffener. But you pay a weight penalty — they fall in the 75–250 pound range.

Inflatables come in all types — dinghy, sportboat, kayak, canoe, even sailboats. They are great specialty water boats, too, in addition to being





"At last!" Filling an inflatable is not without its challenges. The 12 volt, plug-in type air compressor shown above takes 2½ hours to fully inflate this 12-foot boat, plus a 30-minute intermission to allow the compressor to cool down! A foot pump will take 100 strokes just to inflate a seat! Ingenious adaptation of a vacuum cleaner hose to compact car's heater fan, below, blows up a 12-footer in about 25 minutes.





at home on lakes and ponds. An inflatable kayak — two pontoons joined at both ends by a floor consisting of inflated chambers — is terrific for white-water adventures. You'll love the way it bounces off rocks and boulders without scratching or denting. Even in moderate chop, you'll feel like you're feeling only a soft, trampoline-like bounce.

Should you, unexpectedly or intentionally, go over the side, getting back in won't flip the boat or even depress the soft gunwale (side) down into the water more than an inch or two. They are surprisingly stable, even though you may doubt it when you feel the air "give" under you. And the smallest will stay afloat with the rated number of persons aboard, even if flooded with water.

Be prepared to have people give you funny looks as you head out in your "unsafe" craft. They associate an air-filled inflatable with the auto tire. But, unlike an auto tire, an inflatable simply will never experience a blow-out. Sure, like a tire, it can be punctured or leak. But, first, quality inflatables have two or more separate, individual air chambers. Secondly, unlike the auto tire filled with 26–32 pounds per square inch of air, a typical inflatable stays firm *with one tenth as much pressure.* With only 1–3 psi, any leak will be slow and almost "controlled." (You'll find out how slowly air is removed when you purposely try to deflate the boat first time around.)

Let's take a closer look at the construction of today's inflatables. They are really buoyancy tubes, fitted with a floorboard (either inflated or wooden). They may have a transom (inflatable or wooden) for use with an electric motor or outboard. Air is put in (and released) through metal or plastic valves. The valves may be the interconnecting type that connects several air chambers or have an individual valve for each air chamber. Unfortunately, too many valves and the air inflators (pumps, compressors, etc.), provided or available, are not interlocking. That's to say you often have to hold the air hose on while you're inflating the inflatable.

Despite improvements in material chemistry, there is no universal material application. Although cost is often a factor, all material is, to some degree, subject to damage over a period of time from the sun's rays, oil, gas, and contaminated water. Oil is especially hard on most materials and, over a period of time, can delaminate the fabric — separate the inner nylon material from the synthetic rubber around it. Speaking of materials, inflatables are made of PVC, nylon fabric, neoprene, Hypalon or, more commonly, a combination of two or more of these materials. Vinyl, particularly cheap vinyl, tends to lose some shape on unusually hot days and often

requires letting some air out about midday due to expansion. Nylon-based materials are stronger than PVC and less susceptible to puncture or abrasion. Vinyl seams are usually heat sealed while nylon seams are normally glued.

Inflation is not a time for jubilation (no pun intended). All pumps and compressors I've seen or used leave much to be desired, both from a time and operational standpoint. (Remember, you must use a *low pressure* pump.) The boater pictured reported it took over 2½ hours to pump up his 12′ inflatable (plus a half hour "intermission" for the compressor to cool down). After he found out the seat alone took 100 pumps on the foot pump, he never had the desire to pump up the entire inflatable by this method. Necessity being the mother of invention, he found out using the home vacuum cleaner in reverse (blower instead of suction), he could completely inflate it in 10 minutes. At the water's edge, he tapes the cleaner hose to his compact car heater's outlet with duct tape, sets the heater at "cool" and turns on the fan. Inflation time: 25 minutes. (Not bad, but increased from the 15 minutes it took when he had a full-sized auto. Another penalty of the energy crisis.)

Operation of an inflatable is pretty straightforward. Under manual power or motor, however, you must learn to develop "the technique." Especially if there is no keel or means to maintain directional stability and little weight in the bow. *Piloting* often requires using a "crabbing" technique to get you where you want to go. And, with very little draft, wind is a factor you'll have to consider at one time or another.

Inflatables require minimal maintenance but they should be washed with fresh water after each use (easiest if still inflated). Check, especially, the floorboard areas for grit. And never put an inflatable away wet. Talcum powder sprinkled lightly on the surface will help preserve the material and keep it from cracking. When storing, don't stack heavy materials on top — it may cause the boat's material to crack or split during storage.

Finally, when you go to the dealer to select a raft, insist *he* demonstrate how to inflate it — fully. If he has the energy, the patience, the means, it should be a snap for you, no matter where you go.



Although lightweight, inflatables are big and bulky. You might need an extra hand for some launchings. But, no denying it, you can do some things with inflatables that would be impossible with conventional boats. Motors, when used, are best attached once the inflatable has been launched.



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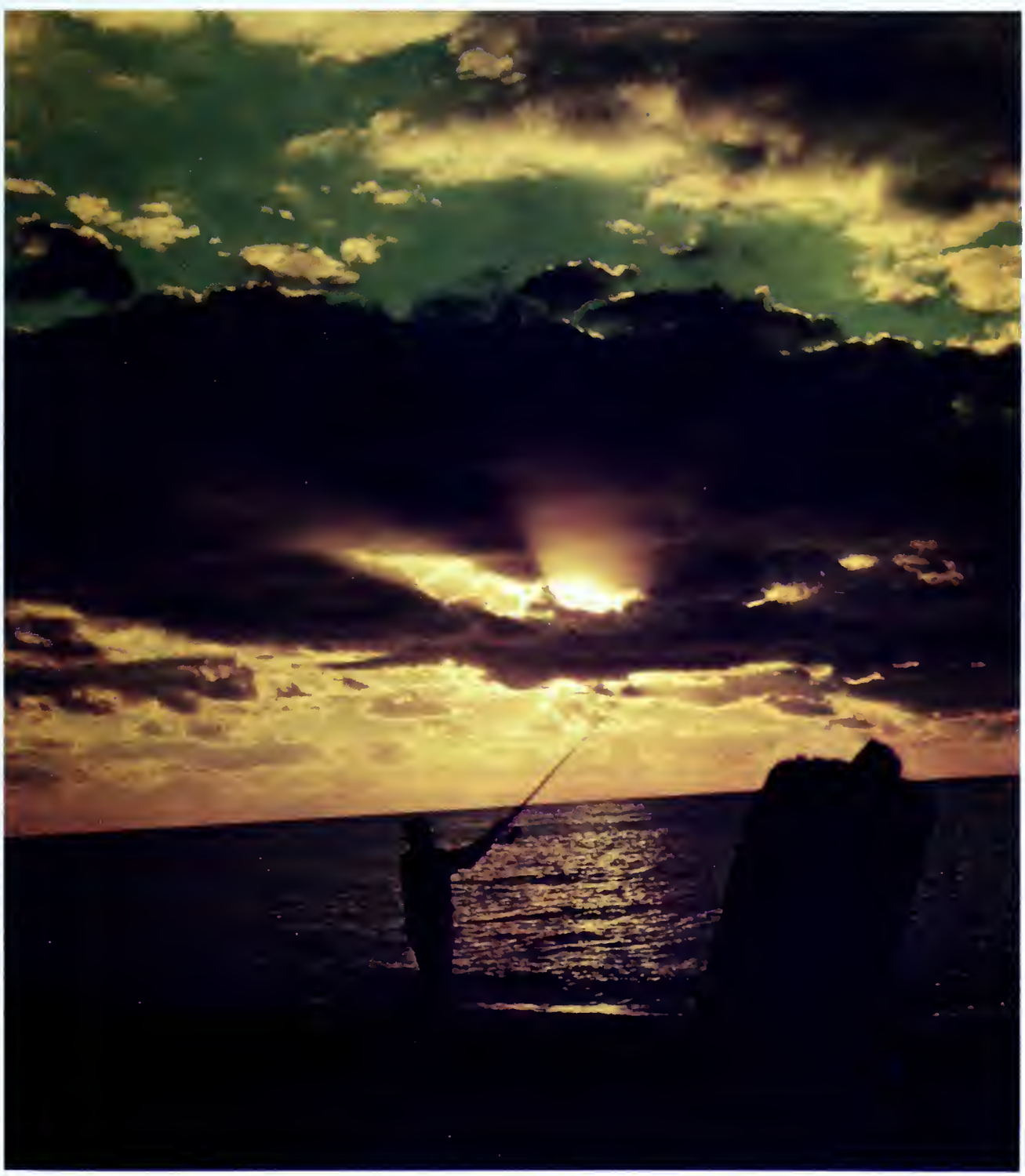
PENNSYLVANIA

Angler

SEPTEMBER—1979

the Keystone State's Official FISHING·BOATING Magazine...

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AT A STANDSTILL!

We were pleased to report in the August issue of the *Angler* the success of the fish ladder installed at the Fairmount Park Dam on the Schuylkill River in downtown Philadelphia. That kind of success story is a great shot in the arm to not only the restoration of anadromous and migratory fish runs, but certainly to our Area Fisheries Managers, our Fisheries Management Section, our Division of Engineering, and all those in the Commission who did such an outstanding job from start to finish in seeing this project completed. Not counting forage fish species, we've had over 21 species of fish use that ladder both upstream and downstream. We are now working closely with the Department of Environmental Resources on not only the next two dams upstream from Fairmount Park Dam, but on restoration projects on the Lehigh River.

We wish our success story could be transposed over to the Susquehanna drainage, where after many years of study and effort we are still somewhat stalled at the first dam at Conowingo, Maryland. Although a fish trap and lift has been operating there since 1972, our efforts to get adequate fish passage over that 95-foot dam have met with one frustration after the other. Last November, the Philadelphia Electric Power Company indicated that they would not object to a condition in their relicensing that would require a fish ladder at a cost not to exceed $5 million. In fact, Philadelphia Electric Company has had a consultant design such a structure. We would be delighted to have Philadelphia Electric phase in the kind of fish passage facility that is best fitted to accomplish our requirements, but are desolated to hear that they are now refusing to consider or provide the continuous flow release requirements. The method of power generation used at Conowingo includes, from time to time, a complete shutoff of the river to build up hydraulic head, and from joint studies of Maryland, Pennsylvania, and the U.S. Fish and Wildlife Service, we know that the instream flow needs cannot be met anymore than fish can live out of water. Such extreme low flows at critical times in the life cycle of any of the fish in the tailrace causes temperature and dissolved oxygen problems.

The Federal Energy Regulatory Commission has not responded with any degree of dispatch to requests by the Fish Commission, Maryland Fisheries Administration, the Fish and Wildlife Service, and most important of all, the Susquehanna River Basin Commission, in terms of operational data, impact analysis, environmental assessments, and a scheduling of action on the requests by the fisheries agencies and the Basin Commission. The Susquehanna River Basin Commission deserves the highest praise for its tenacity in following through on the needs of the river system. Certainly no one use — as important as electric power generation is today — has any right to completely preempt other uses which are, in fact, God-given rights.

Senator Franklin Kury of Northumberland County has introduced legislation that would remove the ceiling from the payments that are made in lieu of construction of fish passage facilities, and provide considerable additional funds to the Fish Commission under Section 185 of the Fish Law. Unfortunately, this legislation would not affect the Conowingo Dam, as it is situated in Maryland. We have to say in all fairness that the Pennsylvania Power and Light Company, and the Safe Harbor Power Company have been extremely cooperative — not only in funding upstream activities such as egg plants and the operation of our VanDyke Shad Hatchery, but they have engaged consultants to design such fish ladders as are necessary. The Pennsylvania Fish Commission's stand at this time is that it is not necessary for the river to be open to the sea for us to require fish passage facilities such as at Holtwood, Safe Harbor, and York Haven Dams. The restoration of a riverine fishery is considered to be such an advantage over the present dam pool fishery for us to make known our requirements at this time. We are delighted with the cooperative attitude of the upstream utilities, and hope that our frustrations at the Conowingo Dam can be settled very soon by the Federal Energy Regulatory Commission.

Ralph W. Abele,
Executive Director

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

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FRONT COVER

Catching one of Lake Erie's salmon is to many the ultimate goal. Fishing for them, whether successfully or otherwise, is a most enjoyable experience . . . when Mother Nature and her "seas" cooperate. This Erie surf caster refused to give up, casting far into an evening sunset of singular beauty — typical of Erie. Photo: Michael K. Simmons.

BACK COVER

By salmon standards, the bluegill might be termed diminutive. On the other side of the coin, his willingness to do battle at almost any time of year and the absolute delectability of his flesh has made the bluegill many an angler's favorite. Photo: George E. Dolnack, Jr.

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James F. Yoder, Editor

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SHAME, SHAME, SHAME!

In the June 1979 issue is a most interesting article, "The Raystown Stripers."

I think that the author and the editor should both be ashamed of themselves. One of the reasons I subscribe is to learn of fishing spots in Pennsylvania and how to get to them.

I have no idea where Raystown Lake and the Terrace Mts. are located and I do expect to be notified by your publication and to have this information in future articles.

That seems to be my only complaint at this time and I'd like to be informed as to the location of these sites.

EDWARD M. PEPP
Philadelphia

In retrospect, Edward, it seems inconceivable that the author would not have mentioned where Raystown Lake was located — even more so that an editor would not have caught the omission! The reason, apparently, is that the author lives a stone's throw away from the pond; the editor, who does not, has frequented those environs long before it was built, knows where it is, and both assumed that everyone must know where this 30-mile-long lake is located. Obviously, that is a less-than-brilliant assumption on the part of each of us. So, we're guilty, and ashamed — as charged!

Probably the best way to explain its location to an inner-city Philadelphian is to say that it's more than half-way across the state, from Philly, north of the Turnpike, "just this side of" Altoona. It's clearly marked on road maps of recent publication. Ed.

"SPORTSMEN"!

Recently, while fishing the Mahantango Creek in the area known as Pine Swamp, I happened to come upon three "sportsmen" (two adult men and one boy). Upon arrival, they came to my truck asking if I'd had any luck. I said, "Yes, caught six." I proceeded to show them my catch. I told them I thought I would walk down the stream to see if I could catch two more for my limit. Returning to my truck with my two other trout, I proceeded to put them in the container with the previous six only to find they had been stolen! Apparently, our three *"sportsmen"* helped themselves. If they were that hungry for trout, all they needed do was ask. I would gladly have given them, but to wait until I walked away and then help themselves was, I thought, a good example for the boy *sportsman.*

GERALD A. HARTLEY
Port Trevorton



NEW STATE RECORD RAINBOW TROUT—
Richard L. Pryor claimed the honor of catching the heaviest rainbow trout on record with his 27½-incher which tipped the scales at 10 pounds, 11¼ ounces. A white maribou coaxed the trophy from Cumberland County's Yellow Breeches Creek.

"SPOILED" GENERATION . . .

Being a senior citizen on Social Security I have to take advantage of your bargain offer. I enjoy the *Pennsylvania Angler* so much that I am saving all my past issues to keep for back reference and reading. I read the *Angler* from one end to the other end.

I wish to comment on the entrance article by the Executive Director Ralph W. Abele which is so well written and since I am 72 years of age I see all the waste of gas daily — where the younger generation won't walk to the store one block but will drive each way in the car — and all the needless waste of all our products. As he states, he hopes the American public will one day wake up to the fact that a little walk to save fuel never hurt even an old man let along our young, spoiled generation.

Thank you for a wonderful magazine. I sure enjoy every word printed.

JOSEPH BARDZEL
Hale, Michigan

PICKEREL —

I think you should have more articles on the pickerel in the *Angler*. The pickerel, I think, is one of the best if not the best gamefish. It's not easy to catch them, but it's not hard either, and that's why they're the challenge they are. Pickerel fight hard, leap often, and are all-around fighters. The best place in the state to catch them is in the Poconos up near Promised Land and Tobyhanna. I hope to see more articles on this great fish. Thank you.

JIM HENNING, JR.
Norristown

LEGAL? SURE IS!

I have enjoyed good trout fishing each spring and, yes, the extended season too. I am also looking forward to bass season. For many years I have vacationed in Ontario, Canada. My favorite bait for largemouth bass is a live frog harnessed to a weedless hook. A loop of braided line is passed around the frog, the hook is placed

nder the knot, twisted until the point of he hook is just below the lower jaw, and he point of the hook is brought up through he jaws of the frog.

Is this method of fishing legal in Pennylvania? I heard from Pennsylvania fishermen that it is not legal so have never used t in my home state.

MARY ELLA CLAYTON
Bryn Mawr

Rumors will persist, we suppose, despite he availability of fact! Certainly it is legal — and effective! Ed.

THE ODDS?

When fishing the Susquehanna around he Wysox area on May 12, 1979 with my father John, Sr., and nephew John O'Donnell, the following incident occurred. We came into the shoreline to take a break from sitting and drift-fishing all morning. As I went to the truck to get a couple of sodas for us, my nephew and father were fishing the shoreline. I came back with the sodas and yelled to my nephew to come and get a soda and pie and as he, my nephew, started to walk towards me, my father started to run towards my nephew's pole to catch it before it flew into the river. My nephew forgot himself and a fish pulled the ultralight pole and reel into the river like a bullet.

Well, after a little yelling and bawling out about leaving an unattended pole, everyone calmed down a little. My father was so hurt that John had lost the pole and reel that he started throwing out his line, which had a split shot and one single #4 hook, to try to retrieve the pole. And guess what, on the second try he yelled to me that he had hooked onto something. Sure enough it was the pole. I walked into the river to get the pole and when I reached the pole my father had caught the tip of the pole by the guide with the single #4 hook. We probably could have had all of Northeastern Pennsylvania try to retrieve that pole in that manner with no luck. I really would like to know what the odds were in getting that rod and reel back that way. I thought this story would amuse you guys a little.

I also would like to compliment your fish wardens in the Wysox area for their courtesy and politeness in any manner in which a fisherman needs help. You have a good bunch of men in the area. Thank you for the excellent job in the stocking program and more the great overall job you men are doing.

JOHN A. SKIRO, JR.
Plains

HELPFUL HINTS—

Please renew my subscription to the *Pennsylvania Angler* for an additional three years. I would like to compliment your staff on the excellence of the various articles. Although I am not from Pennsylvania I find your articles are very applicable to my fishing in New England. My three sons also find your publication filled with helpful hints and informative articles. Keep up the good work.

JACK MURRAY
Concord, Massachusetts

P.S. We hope to visit Pennsylvania this summer and fish some of the interesting fishing areas we have heard about.

SAME ONE!

I caught a 28-inch, 10-pound, 2-ounce, male brown trout at daybreak in the LeTort Spring Run, Pennsylvania. The fish took a #16 Cress Bug I tied the night before. It took 15 minutes to land the big male on the three pound tippet. I believe it's the same male I released four years earlier when he was 23 inches, 5 pounds.

HARVEY SMITH
Reading



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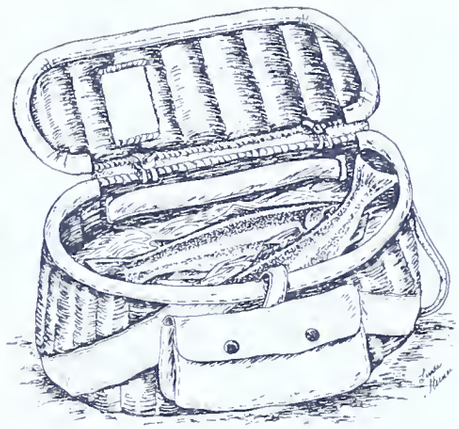
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MEALS from the CREEL

by Margaret Karch Zaimes



Swapping fish stories is one of the highlights of the day for all anglers. With some modesty, all fishermen will rehash the difficulties of landing that big one or the tragedy of the one that got away.

The same story will be told and retold. With each telling the fish grows a bit longer and fights a lot harder. This is quite natural because the fisherman has had more time to recall the days events. In retelling, the just-legal-size fish may (and frequently does) achieve the proportions of a giant prehistoric mastodon with the ferocity of the dreaded piranha.

If a fish that size were ever seen in Pennsylvania waters, I'd sure like to drop a good sized chunk of bait and try my luck in landing it. Hope my Huck Finn vintage rod is strong enough. I'm not up on all the most modern gear but think I'll replace the string with some new wash line!

Like all fishermen, I've been giving this a bit more thought. Do I really want to test my limited fishing expertise on a fish of "that size"?

No . . . I think I'll just join the group and tell my story about the one that got away.

Back when Huck Finn was fishing the muddy Mississippi, a string of fish hanging over the side of a boat or lying in the tepid shoreline waters was proof that the angler knew where the big ones were and could hook and land them.

Of course, Huck might decide to snooze a bit in the midday sun or amble home (the long way 'round) to exhibit and brag about the fish that did not get away. There was no need to ask "where is Huck?" The odor of spoiling fish announced his approach.

Longtime anglers know that it's easy to spoil a good fish dinner before it's even cooked. They take great pains to avoid such a calamity by keeping the fish chilled from the time of the catch.

Fish are perishable when exposed to warm temperature; decomposition begins almost immediately after they are caught. Unlike beef, fish do not improve with age.

The best way to retain that fresh caught taste and texture is to clean and remove the intestines, gills, liver and stomach as soon as possible after catching. This eliminates most of the sources of bacteria that cause spoilage.

If you are fishing sans boat, clean and fill the fish cavity loosely with wet grass and put fish in a well ventilated creel lined with wet grass. The free flow of air through the creel will evaporate the moisture and keep the fish cool.

A smart boat fisherman will have a cooler box on board, partially filled with ice, to keep his catch well chilled.

Remember to lay the fish on top of the ice and keep the cooler drain open. Don't allow the fish to soak in ice water. It will ruin the texture of the flesh by softening it.

The best trout I've ever tasted were prepared shortly after catching. We built our campfire by the side of the stream, coated the fish lightly with flour and fried them quickly in hot butter. The skin was crisp and crunchy and the meat moist and delicious. No need to add seasonings, the flavor was all there.

For some unexplanable reason most of us like our fish free of bones. Unfortunately they just don't grow that way. So, the next best thing is to steam the fish just enough to separate the meat from the bones and prepare a casserole.

If it's a good-sized freshwater bass or pike you've caught why not try the following recipe?

Freshwater Pike Casserole

6 to 8 lb freshwater pike
1 to 2 tbsp fresh lemon juice
1 large onion — chopped finely
½ stick butter
1 cup bread crumbs
3 to 4 tbsp butter
1 can cheddar cheese soup
parsley sprigs — 3 to 4 snipped fine
salt and pepper to taste
dash or two of paprika

While the fish is steaming, chop the onion and put it in a pan with the half stick butter and cook over low heat. The butter will melt and the onion will simmer until tender and transparent.

Add the snipped parsley; salt and pepper; lemon juice and the paprika to the simmering butter and onions.

Separate the fish from the bones and put the flakes in a shallow bake-and-serve casserole. Pour the melted butter and onions over all. Toss lightly to coat each flake. Top with a layer of bread crumbs (seasoned if you like). Cut the extra tablespoons of butter into 6 or 7 pieces and distribute over the crumbs.

Cover casserole with lid and bake at 300 degrees for 45 minutes. Remove lid and bake for another 45 minutes.

Heat the undiluted cheddar cheese soup and spoon over each serving.

Flavorful fish can be enhanced by combining them with a wide variety of sauces and there's nothing zestier than a good cheese sauce.

The discovery of cheese was so many centuries ago that no one really knows by whom or where it was first made. According to legend, it was made accidentally by an Arabian merchant crossing the hot desert. With no modern thermos bottle available, he

carried milk in a pouch made of sheep's stomach only to find the milk had separated into liquid and solid substances. The heat of the sun and the action of the rennin (an enzyme that coagulates milk) in the pouch lining had separated the milk into whey and curd as the merchant's camel rocked the pouch gently through the day's travel. I don't know how accurate the legend is, but to this day cheese is made by separating the whey and curd.

Cheese was a staple food during Biblical times and the art of making it moved from Asia to Europe where the Roman Empire developed a cheese manufacturing monopoly.

At the decline of the Roman Empire, cheese making was improved by European monks. Each monastery developed its own particular kind or type of cheese. Gorgonzola, first of the bleu cheeses, came from a monastery in Italy's Po Valley and Roquefort from another at Conques, France.

Our much loved cheddar acquired the name of the town of its origin in Somersetshire, England, and like the Pilgrims, arrived in America on the Mayflower.

Making cheese was once considered an art. Today it is definitely a science involving a knowledge of bacteriology and chemistry to produce the uniform product available in our markets.

Why am I writing about cheese in a fishing magazine? Simply because there are so many different ways that cheese and fish can be combined to create exciting meals.

A freshly caught walleye will make a dish tasty enough to satisfy even those who insist they do not like eating fish other than tuna from a can or flounder filet from the frozen food section at the supermarket.

The most important part of this recipe is the fish — so, go catch a walleye in a nearby lake or river. Hopefully you will catch enough to have 4 nice-sized filets, each about an inch thick. After you have the filets, assemble the following.

FLOUR FOR DUSTING FILETS

6 tbsp butter
3 tbsp flour
1 cup milk
1 tbsp fresh parsley, minced
2 tbsp spring onions, finely chopped
Dash of dry mustard
2 tbsp sweet sherry
Salt and pepper to taste
¾ cup coarsely grated cheddar cheese

Lightly dust each filet while 3 tablespoons of the butter are melting in a skillet. When butter is hot (don't brown), quickly brown each filet. Takes no more than three minutes. When browned, remove fish immediately and lay side by side in a shallow oven-proof casserole.

Melt the remaining 3 tablespoons of butter in a small saucepan over low heat. Blend in flour and gradually stir in the milk. Mix in parsley, green onions, dry mustard, sherry, salt and pepper.

Continue stirring and cook until sauce thickens. Takes 4 to 5 minutes. Pour over filets and sprinkle grated cheese over the top. Pop under a hot broiler for 4 or 5 minutes or until the cheese is melted and lightly browned.

If the fish were really biting and you arrived home with more than enough for one meal try the following au gratin recipe.

4 filets
salt, pepper and nutmeg
juice of 1 lemon
1 cup grated cheddar cheese
1 medium sized onion finely chopped
4 tbsp butter
1 cup finely chopped nuts, almonds or hazel
½ cup milk
2 tbsp dry sherry (optional)
1 cup dry bread crumbs

Arrange filets side by side in a well buttered shallow baking dish. Brush with the lemon juice (use all of it), sprinkle with salt and pepper and nutmeg (easy with the nutmeg).

Mix cheese, chopped nuts, onion, milk and wine to make a paste. Spread paste over the fish. Top with the dry bread crumbs and cut butter into small pieces and distribute over bread crumbs.

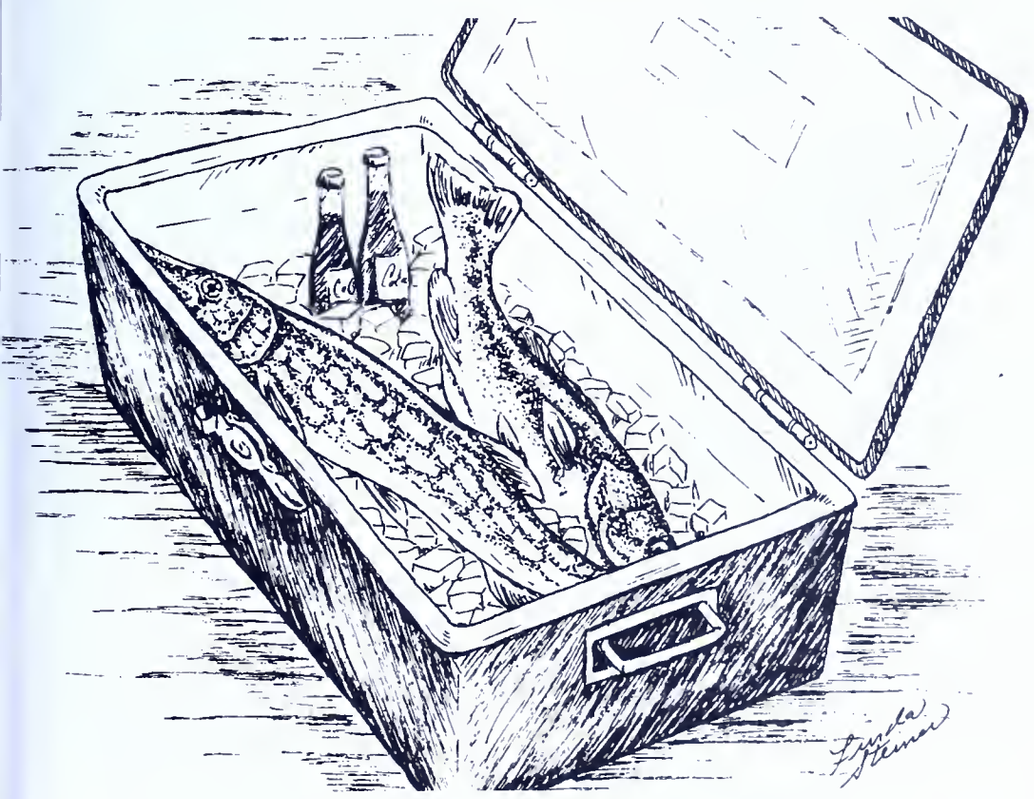
Bake in a preheated oven at 375 until crumbs brown and fish flakes easily when fork tested. Please do not over cook.

I like to assemble all ingredients in the proportions needed for a recipe before I start cooking — makes cooking a joy rather than a hectic chore.

If your preference is for poached or steamed filets spoon the following sauce over them when serving.

1½ tbsp butter or margarine
¼ tbsp vegetable oil
1¾ tbsp flour
1¼ cups milk
¼ cup heavy cream (optional)
2 tbsp grated Parmesan cheese
2 tbsp grated Gruyere cheese

Put butter and oil in small saucepan and melt over low heat. When butter is melted stir in flour to make a paste. Slowly add milk and continue stirring until sauce thickens. Remove from heat and stir in cream and cheese. Makes about 1¼ cup sauce.



Waterside Wanderings

by Linda Steiner

The pastimes of fishing and boating provide those of us who enjoy them with additional hobbies within hobbies. You, like me, may have become a sort of watcher with the seasons. A typical day's fishing usually leaves the angler some time for observation between bites, and one doesn't have to be constantly watching the water to paddle a flatwater canoe. Rounding a bend in an outboard this month, I may startle an early migrating flock of teal, or put a group of long-billed shorebirds to flight.

One of the keys to enjoying the time we spend outdoors is to observe both the large and small things that make up the waterside world. I like to get an overview of my surroundings, as well as notice the little things that I might have trampled if I hadn't taken the time to look closer.

During September, the year starts to sing a different song. Cool nights and frosty mornings are invigorating, and I find I often need a wool shirt under my fishing vest. The skies seem to be the clearest blue of the year, whether I'm sitting on the banks of Kinzua, watching the sky and hawks pass over the mountains, or noticing the brilliant hue reflected in pieces in a pool on Slate Run.

Even streamside trees are showing the tints of brown, red and yellow that will be in full flame in a month. In the Poconos, the blueberry swamps have already gone blood red with the changing leaves, and a fisherman to a tamarack surrounded lake might think he's taken an instant trip to Canada.

Looking underfoot, I see that the wildflowers along the waterside are no longer the delicate pink and white blossoms of spring. The colors of autumn's blooms are more stately, regal purple and gold. Yellow and lavender asters, goldenrod, rare gentian and jewelweed now color the way to the fishing hole. In the drying cattails are family groups of mallards, the little ones hatched this spring already grown up, and flocks of blackbirds, gathering for the long flight.

All along the water's edge in September I find snakes, more now than at any other time of the year. All are on the move toward denning areas as fall progresses, and many snakes find their principal food sources in or near the water. Summer's heat has sent many reptiles to these wet areas, so it's natural that our paths should often cross.

Most of the meetings have been with water snakes, which seems logical. Usually I've just reached the water's edge and am rigging up my fishing rod, when another step sends a snake with dark markings into the stream, swimming along the shore to find a safer resting place.

That sort of sighting I don't mind, but I wasn't fond of the time I nearly sat on a water snake hiding among shoreline logs and debris, along the Lehigh River. I was looking for a seat



while I tied on a hook, and almost found one I'd never forget. I, too, have mistaken the harmless milk snake for a copperhead, because it was red-brown in color. But it lacked the triangular head and vertical eye pupil of the poisonous snake. A checkered belly pattern clinched the identification.

Several of my friends and I were walking a path along the Loyalsock one fall day and had stepped over a long black snake without seeing it. But the next to last person spotted it, came up short and was promptly run into by the last person, which sent them both sprawling. Of course, that's when the snake made its getaway. After that, we walked the trail more gingerly, though I know the snake had been completely passive. But it does make a person nervous when he realizes he's been that unobservant.

It's especially rare to happen onto a snake eating its prey, as I did one day on a small stream. A little garter snake was in the shallows, with a tiny frog in its mouth, half engulfed. It was a miniature view of Nature's way of life and death, which I wanted on film. But when I came closer with the camera, the snake swam away to finish its meal uninterrupted.

Usually we see snakes that are fleeing from us, but one water snake seemed determined to get a free dinner from my stringer of bluegills on Tionesta Reservoir. The snake swam for the fish and I moved the stringer, but it just turned and swam to where I had laid the fish down again. The snake even came after a bluegill I was landing and raised its head out of the water to watch as I lifted the fish onto the bank. I guess the snake finally became frustrated at seeing all those easy meals and not being able to get any, as it finally left.

Snakes do climb trees, which a long black snake showed me one misty autumn day, as it weaved its way through the branches. The body



slithered upward from limb to limb, tree to tree, climbing quickly, and yet not holding onto anything.

Most often I find snakes on the ground, such as one snake which, when I approached, swelled its upper body and raised its head, cobralike. The upturned nose indicated it was a harmless hognose snake, engaged in its well-known neck-spreading act, to intimidate the enemy. I picked it up carefully and the snake became limp, another part of the hognose's routine: playing dead. I released it where I found it.

Normally, I don't handle wildlife, and encourage others not to, but I was pleasantly surprised when I examined a foot-long snake I found on a rocky hillside above a little creek. It was a dull color on the back, but when I turned it over in my hands, I saw it had a brilliant red underside. The unexpectedly beautiful reptile was, aptly, a northern red-bellied snake.

A number of people I know are afraid to go into the woods or walking along a lake or stream in summer and fall because they might have the sort of snake encounters I just described and rather enjoyed. None of these snakes was aggressive toward me, although some may bite if they are provoked. I usually view any snake from a distance.

In all the time I have spent outdoors, I have seen only one poisonous snake, a yellow phase timber rattler that had been sunning itself in an overgrown field after a frosty fall morning. At that time, some years ago, my companions and I overreacted and killed the snake. Today I would just walk wide around it and be more cautious crossing that field. We had found the snake; it certainly hadn't come after us. My husband even used a paddle one day to help a rattlesnake, which he found swimming across a lake, onto the rocky shore.

In early fall, the changing season could mean you'll see such things as snakes, the last of the year's wildflowers and birds gathering on the shoreline for their autumn flights. All of the state's waters are cooling now, too, and that phenomenon signals that some of the year's best fishing is to be had in the months to come.

Small Stream Fishing

by Gerald Almy



Too many anglers overlook the smaller warmwater streams that are often capable of providing plenty of action from a variety of fishes.

Frankly, I wasn't happy as I wound through the southcentral Pennsylvania countryside. It was an overcast day, the air was leaden and heavy, temperatures were already unbearably hot by midmorning. I'd been nearly skunked the day before on one of the highly touted big lakes that sprawl across this rolling, green pastureland, beckoning anglers to try its vast and sometimes unfathomable reaches of water.

Other anglers I'd spoken to on the lake hadn't done much better, and I wondered why we kept constantly plugging away at these lakes that are so often difficult to decipher. True, they are challenging. And yes, they offer rich potential for big fish and an endless supply of water to cast over.

These are qualities that appeal to many among the fishing fraternity. And I could certainly be objective enough that morning to recall many pleasant memories of days spent pulling fish after fish out of such sprawling bodies of water. But for day-in, day-out fishing, I realized anew that they just weren't for me. I needed something smaller and more intimate; something that didn't require quite such an unwieldy accumulation of fishing gear and accessories to be toted along; water that didn't have quite the build-up of traffic that the big, popular lakes draw. Something . . . ?

But suddenly I didn't need to think anymore. There, as I banked a sharp turn in the winding country road, was what I craved — a splended little warmwater creek. Though I hadn't planned it, and wasn't really searching, *this* was the type of water I wanted to fish. I knew it instantly when I pulled off the road and gazed down at its glistening riffles, the deep emerald pool below the bridge, a logjam in midstream that surely held a willing fish or two to salve the spirits of a bedraggled angler.

As I stared, a rise upstream caught my eye. Just below, a small school of sunfish shifted in the broken flow as an aggressive fish among them nabbed a drifting tidbit. A carp rooted along the shoreline, nose down, tail up, like a feeding bonefish.

Abandoning the bridge, I shuffled back to the truck. With uncharacteristic calm, I pondered the rigs hanging on the racks in the pickup camper. Fly rod or spinning gear? It was a tough question, and I deliberated several

minutes before grabbing the ultralight spinning rod and reel spooled with 4-pound line.

A small plastic box stuffed with tiny lures and a stringer were the only other items I needed. What a constrast from the five trips I'd made from truck to boat to load gear for my brief foray on the big lake the day before!

And the stream, too, was a world apart from the crowded lake waters. The instant I broke through the thick brush bordering the banks and sloshed happily into its cool waters I was in a world of my own. The heat dissipated, the air seemed cool and clean, I took large draughts deep into my lungs.

Willows, birch, oak, and walnut lined the banks, and there were thick groves of wildflowers where patches of sunlight streaked through the leaves of the mature hardwoods. Halfway up the steep hillside bordering the right bank a fat gray squirrel rustled through the leaves then leapt up on a stump to survey the angler entering his world.

The stream flowed clear and pure — a bit too warm for trout, but otherwise prime gamefish habitat. The bottom was alternately sandy and pebbly, and its texture was felt right through my sneakers as I wet waded upstream to escape the only remnant of civilization — a few cars whisking by on the highway behind me.

Somehow, I seemed the only angler here, this the only water, these the only fish. Isolated from the rest of the world the only things that existed were the stream, the fish, and me.

A white mist hung lightly above the water, but was thin enough that I could see into the depths of the pools below it with polaroids. There were pods of bluegills and many suckers visible. The sleek lines of a bass could also be seen in the clear water, though I couldn't make out for sure whether it was smallmouth or largemouth.

Casting the small spinner with a gentle flick of the wrist, the lure settled with a tiny splat and I began a slow, steady retrieve. Ten feet back throbbing resistance registered on the limber rod. The bass didn't have the lure, but a gamester of no less value did — the colorful bluegill.

I worked the fish in, fastened it to the stringer, and cast again. Now the smallmouth struck hard, angered at missing the previous meal to the fast little sunfish. As I worked the bronze fish in close, two larger bass — small mouths of 12 or 14 inches — chased the struggling fish and nipped at the lure embedded in his mouth!

Repeated casts wouldn't draw strikes from these other bass, which had probably caught sight of me in the crystalline water. But when I waded upstream 20 feet the next delivery drew a strong take from a largemouth. This fish, too, was strung for the dinner table, and on the next cast, yet a fourth species showed itself—the redbreast sunfish. The fish's bright orange belly flashed beneath the water, and its soft blue back glistened as I lifted the panfish clear of the surface.

The small stream had cured me, as it's done so many times in the past. I'd fished over less than 50 feet of water and cast for maybe ten minutes and already I had experienced two of the most appealing aspects of this cherished form of angling — action and variety.

But there had been other benefits, too. The solitude. The pristine beauty of these untapped waters. The intimacy of fishing in such tight quarters, where casts are short, waters are clear, and strikes and battles unfold directly before your eyes, as if through a close-up lens.

Instead of being loaded down with the cumbersome accoutrements of lake fishing, I'd waded wet in sneakers and old trousers. All needed equipment — rod, reel, lures, and stringer — probably weighed less than a pound and a half.

Spotting wildlife along the stream is yet another benefit of fishing these waters. Since so few people use these small warmwater creeks, it's not at all unusual to see a mink paddling through a deep pool, ducks feeding along the bank, squirrels leaping through the treetops.

The sun, which was now beginning to turn through the morning haze with

Eric Larsen uses ultralight spinning gear for small streams. Used properly, it can handle anything from bass to carp.



broiling force, did not bother me on the stream. I pictured how I would have felt sweltering out in a metal boat on a dead calm lake — like a cat on a hot tin roof. On the stream, tall shoreside trees leaned like a protective canopy over the water, shielding me from the hot summer sun.

Paradise? I didn't feel far from it.

Small warmwater streams are one of the most neglected, yet most satisfying types of waters to fish. There are literally thousands of these tiny waterways winding through the Pennsylvania countryside. Many of them are completely ignored by anglers.

We fish the big rivers for muskies and bass, the coldwater streams for trout, the lakes for a mixture of species. But who fishes the little creeks that offer a bounty of bass, panfish and the stray carp, catfish, or pickerel? Precious few people.

And that's unfortunate, for the streams can offer fishing of surprisingly high quality. Better still, they're located within a half hour's drive of virtually anyone's home in the state, often less. When you've only got a couple of hours on hand and can't drive 100 miles to one of the well-known bass lakes or trout streams, fishing a small warmwater creek is the perfect substitute.

How does one locate such small warmwater gems? It's not difficult.



Small stream bluegills are "suckers" for lightweight spinnerbaits.

You've probably passed over quite a few such fishing holes as you speed merrily on your way to the distant "big-name" waters. If the creek looks deep enough to hold fish, stop and try it sometime. A half hour's casting will tell you whether it's worth spending more time on.

Topographic maps will also reveal many warmwater creeks that might be worth trying in your area. These can be ordered from the U.S. Geological Survey, Map Distribution Office, 1200 S. Eads St., Arlington, VA. Ask for the "Index to Topographic Maps of Pennsylvania," then order the maps you want from this.

Locating the creeks is half the battle in small stream fishing. Once you've found them, the angling is all fun. It's seldom difficult to catch three or four dozen fish in a half-day's outing.

Wading is the best approach. Most of the creeks are too small and shallow to be fished effectively from a boat. Floating down the gentle little creeks in a boat would be about like a wrestler lumbering on stage during a ballet. They're simply too noisy and cumbersome for the little warmwater streams.

On many hot summer days, slipping into the cool stream waters is one of the highlights of the day. I rarely don waders, except in spring and fall when there's a nip in the air. A pair of old sneakers and light trousers are all that's needed.

By wading, you can approach your skittish quarry from downstream (its blind side) and sneak carefully into short casting range. Lures can be delivered ahead of the fish and worked down past their lies, just as a wounded baitfish or dislodged nymph would be drifting *downstream* to them naturally. I prefer to hug the shallow side of the stream, casting up and across to the deep holes, logjams, submerged rocks, eddies, and undercut banks that usually hold a scrapper or two.

Note extremely small tackle box — ample for small stream fishing.



In most cases spinning tackle is best for fishing small creeks. A short rod (4½–5½ feet) and tiny reel spooled with four-pound-test line is the perfect rig for presenting light baits accurately. This tackle is also best for working in brushy, congested quarters where you sometimes have to shoot casts with precision beneath overhanging branches to draw a strike.

Baits such as hellgrammites, worms, and minnows are effective on small stream fish, but I rarely use them. The fish strike so well on artificials that there's seldon any cause to go through the trouble of catching, storing, and rigging the live critters.

A small plastic box stuffed with a few standard lures will usually do the trick on the bass, panfish, and stray carp, catfish inhabiting these streams.

Two lures stand out as top producers: the floating/diving minnow, and the spinnerbait. The thin, plastic or balsa minnow lures that float when resting and dive when retrieved score on most of the big fish during a small stream outing, probably because they mimic so realistically the main food of small stream predators — other fish. These lures should be the 2- to 3½-inch models. They can be fished effectively with a slow, steady retrieve, but often twitching them gently on the surface draws explosive strikes from angry fish.

The spinnerbait in 1/32 to 1/8 ounce sizes will outfish the balsa minnow in terms of numbers on most days, but seldom does this lure take the bigger bass in the two- or three-pound class. A slow, even retrieve, just fast enough to make the spinner blade turn, works best with spinnerbaits.

Other lures I use that work well on small stream bass include spinners, banana-shaped wobblers, jigs, and three- to four-inch plastic worms.

If the stream is fairly open and there is sufficient room for backcasts, fly rods can be used. Typically, the only way to fish a fly rod on such small brushy waters is to work your line back directly over the water behind you. Favorite flies include drab-colored wets, sponge rubber-bodied "spiders," bushy trout flies, and cork poppers.

Long casts aren't necessary, and big, wind-resistant bugs are rarely effective. Thus a rod of 7½ to 8½ feet long taking a 5 to 6 weight floating line will do fine. A tapered leader ensures a smooth delivery, but it needn't be longer than 8 or 9 feet. Tippets testing 3–5 pounds will hold most any gamefish found in these small waters.

You won't likely latch onto any lunkers in the small warmwater creeks of Pennsylvania. If it's big fish you're after, look to larger waters. But an average small stream fishing day will yield a mixture of perhaps 30 or 40 bluegills, rockbass, redbreasts, and crappies; perhaps a dozen or more small bass; maybe a stray trout, catfish, or carp. You'll see wildlife roaming undisturbed along the shore and hear the calls of caroling songbirds from the brush. You'll carry all of your equipment in a shirt pocket, feel the cool shaded waters lapping against your legs, and probably won't see another fisherman all day.

If that sounds attractive, why not give your local warmwater creek a try? I don't think you'll regret it.

Many young anglers get their start on small streams but there is much sport in store for veteran anglers as well.





DIOGENES

by Carsten Ahrens

I don't remember when I saw my first crayfish. I do recall my first sight of a dinosaur . . . it was Tyrannosaurus *rex*. But for firsts, both would seem out of this world. Fact is, if I hadn't grown up with crayfish, I wouldn't believe they were true. Diogenes, and his kind, look downright prehistoric; and, of course, they are . . .their ancestors go back to the Triassic.

Crayfish are clothed in armor. The rigid covering of head and thorax is fused into one rigid piece. The armor of the seven-segemented abdomen is jointed, and each part moves smoothly and often quickly.

Attached to the rather cylindrical body proper are a unique collection of jointed appendages. Insects have one set of feelers or antennae; the crayfish have two pairs. The major set may be as long as the entire animal and the second set, branching and shorter. The compound eyes are on stalks that can be raised or lowered, so might be called periscopic.

A bird has two legs; a fox, four; a beetle, six; a spider, eight; but Diogenes had ten. The first pair of limbs were the largest. They were plated, jointed, and terminated in what at first appeared to be out-sized boxing gloves, but then assumed the shape of great, unlike pincers. He used them to defend himself, to spar with predators and other crayfish, and for dragging nourishment into the general vicinity of his mouth where a number of lesser appendages helped get the food inside.

The four pairs of jointed legs that followed were used chiefly for locomotion. The first two pairs ended in small pincers that he utilized in food-getting, or in anchoring himself, as well as in walking. Pairs four and five, without pincers, were chiefly locomotive.

All of these legs were attached to the thorax at the points where oxygen-getting gills were located. These spongy organs, when wet, made it possible for the animal to leave the water for brief periods of land-living, but when the water evaporated, Diogenes had to return to an aquatic habitat.

. . . *nursery days* . . .

On the ventral side, the first five segments of the abdomen carried five pairs of short, jointed appendages known as swimmerets or swimming legs. These usually aided locomotion. But when she had young, the mother of Diogenes used them as a nursery. The female crayfish after mating carries the sperm stored in a special compartment of her body until her eggs mature. At that time she releases both sperm and eggs into the water where fertilization occurs. The eggs are coated with an adhesive that glues them to her swimmerets. When his egg hatched, Diogenes was a miniature of the animal he would grow to be.

Crayfish produce far fewer eggs (from a few score to several hundred) than fish (tens of thousands). But since Diogenes was attached to a swimmeret and traveled with his parent, he had a far greater chance for survival than a little fish. His mother sent a steady stream of water over the eggs and later the little crayfish which kept them clean and aerated. She sent down that current minute food particles that were intercepted by the young and used for growth. We are aware of parental care provided by higher animals for their young, but down in these creatures on the first steps of the evolutionary ladder, such consideration of offspring is most unusual.

. . . *growing up* . . .

I don't know why the scientist who gave this animal his scientific name called him "Diogenes." The old philosopher, Diogenes, (c. 400 B. C.) was of the Cynic School. According to legend he lived in abject poverty,

dressed in rags, was devastatingly honest and sharp in his criticisms, and slept . . . *in a tub.* Maybe Diogenes, the crayfish, was so named because he spent certain periods of his life in a tube. He grew to adulthood in his own peculiar way.

You and I developed to whatever stage of physical maturity we are presently enjoying in a continuous fashion; at no time was there a discernible difference in our appearance from day to day. But Diogenes grew by spurts. Between spurts, he lived in the prison of his own hard, outer, limy shell, or case; or, as it is often called, his exoskeleton. But it was imprisonment that had compensations: predators were less interested in eating him when the walls that encased him were thick and hard.

Every so often, however, in periods called molts, the hard exoskeleton split open, and Diogenes gingerly extricated himself with all his numerous extensions from the prison. Now he was soft, tender, and succulent, highly regarded as a luscious meal by any fish, reptile, marsh bird, or mammal that might find him. During this period, while his skin was elastic, he could grow and greatly increase in size. Species differ in number of molts in their youth—from four to eleven.

. . . *chimney builders* . . .

Various species of crayfish have adapted to living in the deep water of lakes, in flowing streams, and to motionless marshes and swamps. During the time of molts, other crayfish hid under rocks, logs, leaves of water plants, or they dug holes in the bottom or side of the waterway where they would be out of sight. Diogenes was a swamp denizen, and during the periods when his exoskeleton was soft he dug a burrow on land that went down to the water table. When I was a boy, we called him a "chimney maker," for, above the opening to his burrow would rise earthen, circular walls of clay he dug loose and pushed to the surface. Diogenes didn't use his many feet for digging. He had a pointed, chitinous projection over his eyes that was used for excavation. When Diogenes was very pliant, he would plug up the opening of his burrow, or "chimney," with clay . . . maybe to make certain a garter snake didn't slither down the tube in its haste to get away from some pursuer.

I once operated a lawn mower on a golf course where dozens of crayfish pushed up these towers, much to the annoyance of my boss who seemed to think they were a personal insult. The clay formations would soon dry in the sun to a cement-like hardness. The crustaceans never seemed to tire of rebuilding the clay walls I would break off and cart away. Of course, as the summer advanced, the water table would fall, and the crayfish had to dig deeper to enjoy the life-giving water that seeped into their burrows. The broken clay chimneys would rise again.

. . . *backward to safety* . . .

Diogenes quickly lost his timidity once molting time was over. He returned to the swamp in his phlegmatic, mechanical fashion, moved along by his many legs and swimmerets like something in slow motion. Once again in the water, however, he didn't have to inch along. Attached to the seventh segment of his abdomen were four wide flippers, separated in



the center by the telson. They formed a powerful organ for rearward locomotion. Strong abdominal muscles suddenly pulled the flippers forward, almost exploding the animal backward at high speed. Only the mud stirred up by his passing showed the direction he had taken and now hid him from sight.

Another plus for crayfish are their hues. These range through all the colors of the rainbow and are apt to blend unobtrusively with the environment. In a river that runs deeply through Mammoth Cave in Kentucky, all the crayfish we saw were albinos and lacked eyes. In that stygian darkness sight would have been superfluous.

Diogenes' crustacean relatives were numerous. They included barnacles, copepods, crabs, pill and sow bugs, sandhoppers, shrimp, water fleas, and a host of other from the freshwater, microscopic daphnia to the big marine lobsters. Like most of them, he was omnivorous. He fed on algae, the larvae of water insects, occasionally a smaller crayfish if it had just shed its exoskeleton. But, chiefly, like the rest of them, he was a scavenger of plant and animal remains, so was beneficial in helping to keep water clean.

Crayfish are much sought after by many animals. One study of stomach contents showed that they were a favorite food of the hellbender, bowfin, green sunfish, rock bass, Blanding's turtle, and alligator. A Michigan study showed 26 species of birds fed on them. Diogenes tried to hide away when a mink, muskrat, opossum, otter came into the swamp, for each seemed to be looking especially for him. We anglers must be included among his predators. When I go after smallmouth bass, I try to include crayfish among the bait.

Back in the last century, crayfish were common in human diet in eastern USA—especially when saloons provided "free lunches." In Louisiana one can get crayfish stew or bisque in many restaurants. There is a good-sized species in the West that is eagerly hunted. I tasted some soft-shelled ones (recently molted) in Oregon that had been crisply fried in butter. My host was enjoying them, shells and all.

With so many appendages, a crayfish finds occasionally one or another of them is seized by a predator or somehow is caught. When Diogenes found himself in such a fix, he didn't regard it as a hopeless dilemma. The restrained part was simply discarded by a reflex action of the muscles. The wound would heal, and during the next molt, his body regenerated a bud that developed into a new appendage, replacing the old one.

That was a gift nature stopped bestowing on animals long before man came along!



by George L. Harting

I am the kind of guy who believes a vacation morning should not be wasted in bed. Since, however, the family and guests do not share my persuasions, I often find myself aimlessly pacing the cabin floor. Each action, each step, is taken with mounting dispair as I lament my lot while at the same time, I respect the comfort of my guests. The thought has frequently occurred to me that to slam a door or drop a shoe might advance the hot cakes and bacon by a half hour, but then, the fact of a boomerang effect also crosses my mind.

On this particular occasion, rain precluded a decision for early morning fishing, so as a diversion tactic, I had already visited each window several times to spot early morning whitetails. My bored reaction matched that of the unimaginative child who, after dumping his chest of toys, found no incentive for amusement with the resulting pestering of his mother with the oft-repeated question: "What's to do?"

I reviewed yesterday's good catch of panfish and wanted to register my disgust by kicking the screen door, but then a better idea took root. Fried perch rate tops with my taste buds, but it often occurred to me that some variety could be added by the challenge of an innovative culinary procedure. I addressed myself to explore the hunch and the outcome is what I choose to call "Mock Lobster." It's mighty good eating; here's how to prepare it:

First, of course, you must catch the perch. That, at times, can be frustration; at other times, their cooperation won't let you get off the lake. My favorite spot is the upper body of water at Promised Land State Park, in Pike County; my favorite time to take them is in the spring of the year. But, take them when you can.

I prefer to troll for them with one rod rigged with two hooks. The lower

to turn tiny tidbits
into taste-tempting treats . . .

Try "Mock Lobster"

offering is a small minnow on a trout-size hook and sixteen inches higher I trail a small ground worm on a line weighted with split shot. On a good day one can take a creel limit so you may be sure that if the allowable minnows alone won't last the day the worms will bail you out. Of course, in the daily limit of fish will appear the red eye, the pumpkinseed, the bluegill, and an occasional catfish, and each is good eating in its own right.

Now that you have caught the perch, how do you handle them? They must be skinned for this innovative dish, a procedure that, after a little practice, can actually be done more quickly than the traditional scaling process. Three tools are essential: an extremely sharp and pointed knife, a good pliers, and a cutting board. A fourth requirement, that of a skilled hand, quickly develops with practice.

The perch is placed on a cutting board, held so that its belly rests on the board; a cut is made to sever the head and the pectoral and pelvic fins. The tail is removed with a second slice after which deep gashes are drawn on each side of the dorsal fins and the anal fin. These appendages can then be lifted from the fish by creating on them a clamping pressure of the knife blade against the thumb of the working hand. Next, the pointed blade is used to cut a separating incision in the skin over the backbone, from head to tail, a repeat performance is done across the belly (the entrails are removed from the fish with this incision.).

The procedure that requires skill now follows: The perch is held in the left hand (assuming the operator is right-handed), the pliers grip a fold of the skin at the top fore end of the skin incision. As the pliers pressure is applied to pull off the skin from the flesh, the left hand furnishes what I call "thumbing" action. It is a procedure whereby the skin and flesh separation becomes a joint effort of the pliers pull on the skin and the "thumbing" push on the flesh. The objective is to keep the ribcage meat on the carcass and off the skin. The last effort is to clean and wash the carcass into acceptable shape for the saucepan.

Twin factors determine the number of fish to be prepared; these are, on the one hand, the appetites of the dinner guests and, on the other, the size of the fish. Promised Land perch run small so we settle for about six per diner. Incidentally, this procedure is one for which even the peewee-sized catch is acceptable.

The fish are placed in a saucepan of water which covers the fish and is brought to a rolling boil. Do not cover the pan and be on the alert for the water to froth over. Allow the contents to boil at a full rolling boil for about four minutes — again, the length of the boiling time depends on size of the fish and on whether or not the perch have been frozen for storage before processing. It is a good practice to group fish of similar size to prevent some from being overcooked while others may be undercooked.

After boiling, the water is drained from the meat immediately and cold water is added to cover the fish. As the water warms, it should be exchanged for fresh cold water. When the perch have thoroughly cooled the flesh will become firm, and, with care it can be broken from the carcass in boneless nuggets. Perch have a column of bones at the front of their body extending from the backbone perpendicularly. Separate the flesh so that the tips of these pesky daggers are exposed and, with the knife blade, scrape them from the flesh under the assisting pressure of cold faucet water.

It is at this point the cook takes over, and fortunate is the sportsman whose wife, like mine, has the disposition to make game and fish cookery an adventure instead of a reluctant condescension to save a marriage. A generous supply of butter is melted in a skillet and the perch nuggets are allowed to steam in it. Shake the skillet to be sure the flesh is coated with butter but gentle enough to prevent the pieces from breaking. As soon as the fish is heated through, it is ready to serve. The climactic moment happens when these steamed nuggets are served with drawn butter that is kept sizzling hot with the aid of a candle warmer. It's a gourmet delight!

On the morning of my experiment the family "slept in," as usual, but after our brunch which incorporated a trial run for my new dish, even my wife agreed the outcome of my early morning rising was worth the effort. Boiled perch prepared in this manner carry a message through the taste buds to the brain . . . it affirms there is here a facsimile to lobster tail. At the current rate for lobster, the wallet gets the same message!

Autumn Angling and the Big Spawners

by Delano R. Graff, Chief
Division of Fisheries

For several years, Pennsylvania anglers have enjoyed the opportunity to extend their trout fishing in all stocked streams beyond the traditional closing date, through the months of September and October. This "extended season" was intended to provide trout fishing during a very pleasant and beautiful time of the year. Regulations in effect during the "extended season" — creel limit of 3 trout per day — were designed to emphasize the angling experience rather than harvest of fish. The "extended season" has been successful in providing an expanded recreational opportunity for trout fishermen, but it hasn't produced a great increase in fishing pressure. The lack of heavy fishing pressure on trout streams during the fall months is understandable. Fishing for bass, walleye, and muskellunge is superb in the fall, and other events, such as archery season, upland small game season, football games, baseball playoffs, and the World Series, all compete for free time in the fall.

On April 17, 1978, the Pennsylvania Fish Commission changed the regulations pertaining to "extended season" for trout to:

"Includes all approved trout waters and downstream areas plus lakes and ponds from 12:01 A.M. September 4 to midnight February 28, 1979. The minimum size to be 6 inches, the daily creel limit 3 (combined species)."

This action to simplify regulations and increase recreational opportunities has aroused some well-intentioned, but emotional, "save-the-spawners" reaction. The crux of the concerns voiced seems to be that angling intensity and trout harvested will increase and will result in a decrease in eggs produced. There is no evidence that angling intensity on streams will increase. Most trout anglers fishing after November 1 are expected to concentrate their efforts on lakes and ponds — many of which receive stocked trout during the months of November and December. Angler counts conducted during the September–October period indicate that a minority of anglers fish for trout in the fall. We do not see heavy fishing pressure on the streams, and it is felt that the creel limit of 3 trout minimizes the effect of the "fish hog."

As far as any decrease in eggs deposited, we find a great deal of angler misunderstanding about what really controls the densities of trout populations, particularly in reference to the relationship between numbers of eggs spawned and numbers of catchable size trout produced. This article is intended to provide some insights into the role of the "big spawner" and into why the Commission feels the "extended trout season" will not damage wild trout populations.

Historically, closed seasons were established to protect trout during spawning. The idea seems to have been that trout are somehow easier to catch at this time and somehow more valuable to the future well being of the fish population than they were a few weeks earlier. It is generally being recognized that neither of these beliefs are universal or even general case truths. However, strong emotional reaction can still be stirred up when someone catches a big "spawner."

It's always struck me as sort of odd that a guy who walks into the local gas station, barber shop, sports store, bar (or whatever), and flops down a 20-inch brown trout in July or August is viewed with admiration as a "good fisherman"; but if he does the same thing in October, he's greeted with frowns and comments such as, "Geez, it's a real shame the Fish Commission lets you hogs kill them big spawners. You're ruining our streams!"

Why should this be? A dead trout is a dead trout; one killed in October is no more likely to spawn than one killed in July. In either case, it's rather unlikely that the eggs "lost" would make any noticeable difference in the next year's trout population.

The death of some trout caught in the extended season may result in the deposition of fewer eggs, but this is quite unlikely to be reflected as fewer legal trout a few years later. It is probable that the effects of removing a few spawners will be masked by changes in mortality (or conversely, changes in survival) rate which offset the "loss" of eggs. It is very difficult to appreciate the toll nature takes on trout. Many, many trout die from "natural" causes. This is hard for anglers to accept because we seldom see dead trout in streams. Despite the fact that we don't see large numbers of dead trout, it's still a safe guess that anywhere from 35% to 65% of the "legal" trout in any given wild population will die in any given year.

The loss of young ("sublegal") trout is even higher. The fry and fingerling stages seem particularly vulnerable — the highest losses often occur just after fry emerge from gravel. Putting more eggs into a system where there is already a "surplus" will usually do little more than increase mortality. In those instances where there is low egg production, nature seems to compensate through a high survival of fry and first summer fingerlings. In short, it appears that nature operates to allow a population to increase when density is

low and to cause it to decrease when density is high. In recognition of this, biologists often refer to the complex interactions of various biological factors which regulate population size as "compensatory mechanisms." Because nature's regulatory processes do tend to operate to compensate for losses, the removal of a few additional trout during the extended season is not expected to have any effect on successful reproduction and population maintenance.

Since natural mechanisms operate in a far more ruthless and effective manner to regulate populations than most people realize, it is not unlikely that large numbers of eggs deposited by a high number of spawners may result in no more catchable size trout than would survive if substantially fewer eggs were deposited. Almost everyone knows that "Nature abhors a vacuum." We know what that means: There are few empty spaces in nature. Not everyone recognizes that "Nature detests a surplus." In most instances, when animals in a natural situation "overproduce," the overproduction is "surplus" and dies. (In some cases, with certain fish, the population becomes "stunted.") All of us who hunt have become familiar with the concept of "harvestable surplus." If the hunter doesn't kill the surplus, nature will. In general the same thing is true of trout populations: They produce a surplus, their numbers are regulated by natural factors, the surplus dies. When more eggs are deposited, the "surplus" increases and mortality increases.

Those voicing concern about extending trout season often assume that there is a simple, straight line relationship between the number of eggs deposited and the number of legal trout produced. This same assumption appears to motivate some folks to plant plastic boxes full of trout eggs in their favorite streams in an effort to fool Mother Nature and manufacture "wild" trout. Actually, things aren't that simple. Obviously there is a relationship between eggs deposited and fish produced — you can't get 500 trout from 400 eggs, you can't have wild trout if none spawn — however, above a minimum level of eggs, our trout populations are controlled by a variety of natural factors which tend to regulate populations within certain limits. This means that, in most instances, the number of young trout surviving to a catchable size will fluctuate around some fairly constant level for a rather wide range of intermediate (neither high nor low) densities of spawning stock. This fluctuation is influenced by population density and by environmental factors. In any given year one can have a high survival or a low survival, but over the long term the population will be close to an "average" density. There is just no predicting all of the things that will cause a population to fluctuate — floods, drought and siltation can all play a role. The simple relationship of X number of eggs equals X number of trout is extremely difficult, if not impossible, to demonstrate in Pennsylvania streams.

The size of trout caught in the fall is often the cause of much concern to some anglers. Many folks think it's the "big spawners" that must be protected. The extended season permits angling on or below all stocked waters and this includes some fine wild trout streams, mostly brown trout. No doubt some large trout, "big spawners," are caught during the extended season. I have no intention of discounting the contribution of older trout, but the role of the "big spawner" in maintaining a healthy population of wild trout is not critical. The bulk of eggs produced in most of our wild trout populations come from two- or three-year-old fish, not from the bigger, older fish.

Big trout taken in the fall cause sincere concern among anglers who fear wild trout will be wiped out. I wonder if they realize how many *big* trout are taken every summer by a relatively small percentage of our anglers who specialize in night fishing? If these anglers were aware of the catches made by those hardy individuals who fish at night, they would be foaming at mouth to have night fishing outlawed! The fact is, fishing at night is legal, has been for a long time, and we still have wild trout. It's hard for me to believe that a big brown trout is easier to catch in October than at 2:00 a.m. on a July morning. It seems evident that the few big fish taken in the extended season play a minor role, that we can allow autumn angling for trout, and still continue to have wild trout.

There may be some cases where wild trout populations are being overfished but that is not a new risk and it's only remotely related to an extension of trout season. Despite what some anglers think, the majority of harvest of trout takes place during the first few months of the season. In most areas receiving stocked trout, streams are subjected to heavy angling pressure only during the period of stocking. That means that almost all of the trout creeled are caught by the first week in June. An extended season with a creel limit of 3 trout is not a serious threat when compared with the heavy angling pressure of early season. If any damage is to be done by overfishing, it has probably been done well before Labor Day. The Commission's survey and inventory of trout streams may indicate that certain streams are being overfished to the detriment of the wild population. In those cases, it is likely that curtailing of stocking to reduce angling pressure rather than a shortened season would be the best solution to overfishing.

Autumn trout fishing isn't of interest to everyone; but for those who enjoy trout fishing in solitude that is difficult to find when "trout fever" is at its springtime peak it is a rewarding and pleasant experience. There is no evidence that the "extended season" will be detrimental to wild trout populations. There is no indication that big trout are noticeably easier to catch in the fall than in the spring or summer. The role of "big spawners" is not significant in maintaining a healthy population of wild trout. We know that most trout populations produce far more eggs than are necessary to maintain themselves; thus, adding a relatively few eggs to such a population or subtracting a few through harvest of potential spawners is rarely a factor in determining how many trout will survive to "legal" size.

I hope that, in a few years, those who despair over the extension of trout season will find that their dire predictions have not come true, that we haven't damaged our wild trout resource by extension of angling opportunities. There is a bright spot, this expression of concern about spawning trout constitutes the beginning of recognition that Pennsylvania does have a significant number of wild trout streams, that wild trout are supporting a substantial fishery, and that it isn't essential to stock every stream over 10 feet wide in order to have trout fishing.



be it stream, river, or pond, everyone has

A Secret Place

by Fredric Doyle

I was mowing the lawn when Bill drove up in his Jeep and stopped at the front gate. He jumped out and flipped open the lid of his basket creel.

"Look, see!" he called.

Snapping off the switch of the electric grass cutter, I walked out to see what had brought Bill back to the here and now.

Bill, who had served his hitch in Uncle Sam's Navy on a submarine, had developed a far away look from peering through a periscope in search of Nazi U-boats. Or like Ishmael, clinging to the swaying mast head of the Pequod, scanning the watery horizon for the elusive Moby Dick.

He balanced the creel on the battered fender of the Jeep as I looked. Bedded down a mat of fragrant fiddle neck ferns was the most beautiful catch of brook trout that I had seen in a long time. There were six or eight trout. All about twelve to fourteen inches long . . . fresh . . . clean. The white-trimmed fins and red spots contrasting with the green ferns.

"Bait?", I asked.

"Flies. Cahills, mostly."

"Where?"

"Shade Creek."

As I watched Bill and his Jeep fade out with a screeching clatter in a pall of eye-watering exhaust smoke I knew he was . . . well, bypassing the truth.

Now ordinarly I trusted Bill — even with my split bamboo J. Harvey fly rod and my box of hand-tied flies. We had fished together on Kettle Creek, Cross Fork, the Conococheague, and the upper reaches of the Raystown Branch of the Juniata River. We shared secrets as to how to best bake a potato or broil a trout over an open camp fire. And so I felt jolted . . . also perplexed.

After a moment, and an inward smile, I said to myself, "I'll get even!"

This triggered a flashback to a roadside stand in Arizona where a little girl was selling rocks . . . chips of petrified wood from the ancient forests of that region. Examining one of these specimens I asked, "Where do you find these pieces?"

The little girl looked up and smiled sweetly, and confided "I have a *secret place*."

Reflecting upon this I concluded that most of us have "a secret place." A place that we call our own. Like a squirrel or a wood mouse we stake out a territory . . . ignoring the formalities of patents, deeds, or land grants. It is a place to go back to . . . a place where we have a sense of freedom. A place to go to lick our wounds from the "slings and arrows" inflicted on us in the rat race. A certain bend in the river with a grassy bank where we can sock the butt of our rod in the mud and watch the dragonflies hitchhike rides on the bobbers. Or perhaps a quiet lake where bluegills are fat and hungry . . . a frozen pond with winter stillness.

My secret place is a laurel-fringed stream. It gurgles down the mountainside before cutting a channel through open meadows. Cattle come to drink and lie contentedly in the shade of sycamores along the bank. Rock bass, chubs, and white suckers fan their fins in the deep pools of the pasture while trout hold to the cool waters of the woodlands.

A few days after the opening of the spring trout season the place is usually deserted. Tangled leaders and hooks dangling from the overhanging



branches of the stream are all that remain of the early onslaught.

I go there alone.

I go there when the groundhogs and birds have returned to the business of setting up spring housekeeping. Dens and nests are cleaned out in preparation for new families. Migratory birds are back. Woodcocks flutter from the thickets where their shallow nests are hidden.

Once I came upon a mallard hen on her nest of eggs in the deep woods. A week later I returned to find the nest destroyed. Feathers and egg shells scattered among the leaves.

Mink tracks on a sandy shingle of the stream marked the loping stride of this sleek predator. Several summers there were none. Believing the minks to have been exterminated in this region I was glad to see that they had returned.

The raccoons we have with us always. We see where they have overturned stones and dug in the mud for crayfish and those little spotted newts.

Wild turkeys leave only their feathers. Seldom do we flush them along the stream.

One season a pair of beavers moved in and built a dam. It was the first time that I had ever seen these tawny engineers at work. The next year they were removed to a more suitable environment.

And then there was the unforgettable sight of spawning brook trout. I could hear them splashing . . . jockying for position . . . long before I came to the stream. All this is part of "The Art of Angling."

Izaak Walton quotes his friend Sir Henry Wotton as saying that the Art of Angling.

"Twas an employment . . . not idly spent . . . a rest to the mind, a cheerer of spirits, a diverter of sadness, a calmer of unquiet thoughts, a moderator of passions, a procurer of contentedness . . . that it begat habits of peace and patience in those that professed and practiced it. . . . "

Perhaps that's what fishin's all about.

It was late in the summer when I stopped by at Bill's place to show him a catch of smallmouth black bass that I had caught on a feeder stream of the Raystown Branch of the Juniata River. Bill was working on his Jeep . . . some internal trouble, I surmised, spark plugs, bolts and nuts were scattered about.

When I opened the styrofoam containers Bill's eyes widened. That distant look snapped back to the here and now. For a long time he looked at the fish lying there on a bed of cracked ice. Their bronze scales reflected the warm sunlight.

"Bait?" he finally asked.

"Stonecats."

"Where?"

"*Shade Creek.*"

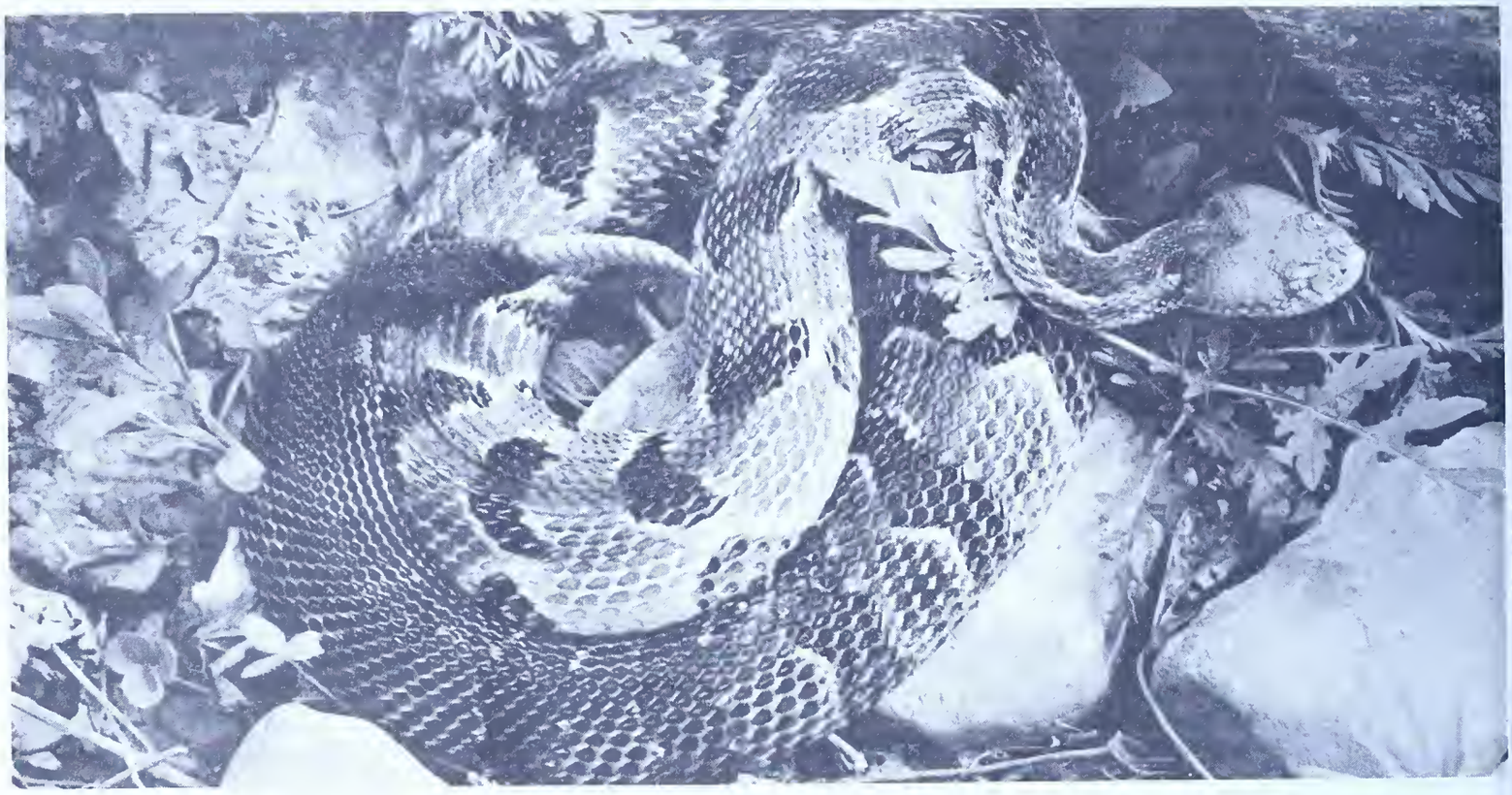
For a moment Bill looked puzzled. Then, an illuminating ray of light sparkled in his eyes. Wiping his hands on an oily rag he extended his hand.

"Shake," he said.

"Now we're even," I said as I felt his warm handclasp.

A Change in Attitude

by Richard Tate



One cold, sunny April morning, Dad, my brother Bill, and I set forth on an hour's journey from our little pole hunting cabin to a secluded ribbon of crystalline freestone water hidden in a remote mountain glen in Clinton County. We were going in quest of native brook trout. As we wended our way through the laurel, which constantly grabbed at the laces of our boots, we started to warm up and began to anticipate a stop at a small spring about halfway to the brook. My mind drifted to other places and times as the calm of the forest soothed my civilization-scarred conscious. Suddenly Dad, who was in the lead, shattered my reverie.

"Stop! Stop! Get back! Get back!" he commanded as he scrambled heavily into my brother and me.

"What's wrong?" Bill asked excitedly.

"Rattler! There's a rattlesnake lying right in front of us!"

"Get some rocks!" I yelled. "We'll kill it!"

We quickly gathered some large stones and began to pelt the sluggish snake with them. Each time a stone found its mark, the snake writhed painfully; finally, a large rock crushed the rattler's skull, and it died. Even after we were certain that the snake was dead, we approach the large, black-phased timber rattler cautiously, fearing its venomous fangs. We covered its shattered head with rocks, and then I got out my pocket knife and cut off the seven rattles that remained after the savage pelting.

"Boy, he's sure a big one!" I crowed. "Wait'll I show these rattles to my friends. They'll be impressed."

"Yes," chorused Bill. "I want to take the rattles to school. I think my teacher would be interested in seeing them, and I can tell her how we killed the snake."

Talk of the dangerous four-foot rattlesnake dominated our conversation for not only the rest of the day but also for several weeks after. We three fearless fishermen had destroyed a ferocious foe of man.

Although this incident took place years ago, I can still envision the rattlesnake lying in our path, and I can remember how we cruelly killed it.

"*Cruelly* killed it?" you ask, amazed. "But why shouldn't you? Those ugly, slimy things aren't good for anything, and it could've bitten you. The only good snake is a dead snake."

Well, perhaps, but let's consider a few things.

One thing I have learned to accept is that snakes are valuable helpers of man. Yes, indeed! Snakes are effective controllers of destructive rodents such as mice. You know, mice, those nasty little beasts that make such awful messes in cupboards and that destroy tons and tons of valuable farm crops every year. Snakes rely on these rodents for a major part of their diet, and in this way many snakes are effective servants of man. Even the snakes which are not busily ridding barns and fields of pesty mice are valuable predators, which, if not helping man, are surely not hurting him either. They are acting as one of nature's guardians, helping to maintain a proper balance of their prey to the environment. Should snakes be ruthlessly killed for performing this natural function?

Besides being beneficial to man and serving as effective population controllers, snakes are not the ugly, slimy creatures commonly imagined. In fact, many are quite lovely. Some garter snakes and ribbon snakes are gaily colored with bright yellow stripes across their backs. There are also many browns, blacks, and greens in the makeup of snakes that help to camouflage them from their enemies. Even the poisonous copperhead and the light phase of the timber rattler are quite colorful.

Although there's something dreadful in his name, the timber rattler, opposite page won't seek you out as its "victim." Simply exercising caution while outdoors will greatly reduce the chance of an encounter.



The harmless and beneficial milk snake, right, is often mistaken for a copperhead and needlessly, cruelly killed. "Live and let live" is a good attitude toward most any snake.

One cool afternoon last August I was going to fish for trout on a wooded section of nearby Clover Creek. I had just pulled off a gravelly back road and had opened the door of my Scout when I spied a snake about twenty feet from the vehicle. I thought it was too far from the creek to be a water snake, and after I had donned by hip boots, I investigated a little closer. The snake's sides were marked with alternating blotches of brown and a fairly bright rusty orange; its head was about the color of an old penny, and triangular. Though I recognized it as a poisonous copperhead, the muted beauty of the snake attracted my eye. Then, when I touched the snake with a long, long stick, it did not even strike, but rather defensively slithered away into some brush.

At times as I sojourn along the many lovely trout streams of Pennsylvania, I come upon snakes, usually harmless water snakes, that somebody else has killed. I have examined many of these, and contrary to popular opinion, snakes are definitely not slimy. In fact, the skin of a snake has a rough, dry sensation. Like many other old wives tales, it is unfortunate that snakes have been labeled "ugly and slimy," because it is these inaccurate ideas that are believed and that arouse the instinct in people to make them want to kill every snake that they encounter. There has been a beginning recently to educate the public about the niche that snakes occupy in the order of life, but this movement is only slowly gaining any momentum, and snakes remain on most people's "hate lists."

Recent reports that have been issued have indicated that many snakes are becoming increasingly rare, especially the poisonous ones. Some scientists have even forecast the extinction of many species of snakes. These reports are probably not exaggerations. I spend a lot of my life along the streams and on the mountains of Pennsylvania, but after my dad, brother, and I killed the large Clinton County rattlesnake, I did not see another of the much maligned rattlers until one late evening last September when Dad and I were scouting for small game. We were walking along an old logging road when all of a sudden I heard the angry buzzing of a rattler!

"Move it! Move it, Dad!" I yelled. Dad immediately scurried ahead as I hurriedly retreated. After our mad dashes, and after I'd calmed down a little, I cautiously made a wide detour around the unseen but still buzzing rattlesnake.

"Where is it?" I queried.

"Over in those weeds." Dad pointed to a patch about twenty feet away. "I'll shine the flashlight. Do you see it?"

"No," I replied, my eyes straining for a glimpse of the snake as the gloom of twilight settled. "I'll toss a branch in there; maybe he'll strike at it."

The tossed stick aroused the rattler; it did not strike at the stick, but instead began a withdrawal up an embankment. It was a fat, light-colored snake of not more than three feet.

"Want to kill it?" Dad asked.

If he had asked me that only several years before, I would have enthusiastically launched a vicious attack on the rattler. Even though it had raised my blood pressure forty of fifty points, I replied that we ought to let the snake go.

"I'm glad you said that," agreed my father. "There don't seem to be many around any more. I don't think I've seen one since we killed that one when we were up North after the brook trout."

"Uh huh," I added. "I'd hate to see them become extinct like some people say that they will. Even though it scared the heck out of me, I think it's got a right to live, too."

"It was a gentleman," said Dad, "or a gentle lady," he continued in deference to the changing social attitudes of our society. "That snake sure let us know that it was around, and it didn't even try to bite us when you made it move. It certainly wouldn't have been right to kill it."

It surely would not have been right to kill the rattler, and it is usually less than excusable to kill any snake that is encountered, whether in the woods or along the stream. Even if the future snakes I run into are like the September rattlesnake that had my heart pounding and my nerves stretched like a tightrope, I do not plan to harm them. I now prefer to see living snakes rather than dead ones, not only for the valuable deeds that they perform for man and nature, but for their aesthetic beauty as well.



One of the Do-Fly Club's annual endeavors is meeting Fish Commission trucks and float stocking Neshannock Cree

The "DO-FLY" Does It

by Thad Bukowski

"I am really surprised by the success of this little club," Regional Supervisor Walter Lazusky reported after issuing 56 certificates to students who completed a fly-tying course handled by the "DO-FLY CLUB" at Shenango Elementary School south of New Castle.

"It takes a lot of work but you're happy when you see the results," summarized club president Dom Petrovich, just as the school ended. The week before, Waterways Patrolman Joe Houck spoke to a total of 110 who came for initial classes conducted over the period of time taken to instruct in fly-tying.

One of the participants, Jim McSorley, dropped $20 into the small club's till after he and his son travelled four times from 65 miles away for the fly-tying instructions. They thought the club's instructions were that good.

All of this was free, showing that dedicated sportsmen, giving up their own time, can do much for both youngsters and oldsters interested in learning how to trout fish in a more interesting manner. They taught basics of streamer, nymph, wet and dry fly tying, and, to say the least, fantastic interest was exhibited for the eighth year in a row. By school's end, students took with them a dozen or so of their own hand-tied flies typical of those used in the area streams includ-



Mike Fugimagari, a junior high student, moved from novice to advanced fly tying and gets fine points from Merle Zeigler at fly tying session.

Ray Bales, Jr., left, and club president Dom Petrovich, right, demonstrate testing of water quality as it's done on all streams in Lawrence County.



ing cahills, gold ribbed hare's ear nymphs, stone fly nymphs, various caddises, and streamers.

Actually, the almost entrancing tying hobby appears as good for companionable conversation among journeymen and expert tyers, too, just prior to the trout season and this has always been a big interest at the school as accomplished tiers have fun comparing notes on their favorite flies and tying techniques, while newcomers learn the added information of the importance of a stream's insect supply, water quality, and trout habits which differ among the species.

A big vote of thanks could also go to the Shenango Area School Board whose district representatives for the past four years have opened and approved use of the school's cozy primary cafeteria and its tables for tying instructions and the gym for rodding techniques. Many eager youngsters have learned the importance of "tossing a line" inside the building as a result instead of spending similar time throwing brickbats at the windows.

Steve Wrotny, a visiting instructor who came over 40 miles from Ambridge one night to give advanced lessons, was pleasantly surprised at the care which the youngsters took in responding to the request to keep everything neat.

The instructing club, called the "DO-FLY CLUB," of New Castle, is really a small group of not more than 15 hard-working anglers. For their eighth year, they have conducted the free tying lessons and added more and more students each year. In fact, six gals got certificates from Supervisor Lazusky during the past season, including the county's Conservation Queen, Barbara Zeigler, and Pam Bales who won the honor of attending this year's coming State Conservation School after winning in competition against two dozen boys.

But this is not all that the club does. Splitting their labors, the group raises 10,000 trout for the streams of Lawrence County in a cooperative program with the Fish Commission after taking over an abandoned commercial hatchery where half of the fish are raised. Members have also supplied nearly $100,000 of work effort and funds to additionally build a new hatchery with help from the Ambridge District Sportsmen's Club and some funds from Mahoning Sportsmen's Club, Castlewood Club, and Shenango China (the latter three donate funds for food to raise each year's complement of trout). The club's second hatchery has been built as a memorial to one of its members, Mike Ferchaw, who died unexpectedly and is known as the Mike Ferchaw Memorial Hatchery.

Nor is this all the work of the club as they also conduct a Fishing Derby for the same youngsters after tying lessons are completed. Club members do it right in town in New Castle after inveigling merchants to provide over $400 in funds for a special trout stocking program for the derby.

While parents shop, kids catch fish and have a great time. Youngsters fish right in the center of the commercial district of greater New Castle, downstream from the North Street Bridge to Washington Street, the main busi-



PFC Regional Supervisor Walter Lazusky distributes certificates to five lasses who completed fly tying school.

ness artery. The two intown bridges define the Trout Derby area, and these are on the Neshannock, one of two main trout streams of the county.

Even the founding fathers of the city have had to look a bit to abating pollution because of the enthusiasms of the combined groups. Corrective measures had to be instituted in sewerage from the Croton district after a Fish Commission biologist's check indicated some open sewers formerly sneaked a bit of sewage into the stream.

The stream additionally has been adopted by the club under the "Adopt-a-Stream" program, and now the city yearly also provides two trucks so that boy scouts and other youngsters, under club members' supervision, pick debris from its shores. The trucks tour an area from the city for nearly a dozen miles upstream to a picturesque old mill dam which anchors the county stocking point at Volant. After the cleanup, club members supervise a float stocking situation when Commission trout come.

The trout derby awards youngsters prizes for the most, biggest — and *smallest* fish! Youngest participants get various prizes and the Greater New Castle Association is tapped for the additional $400 to help with the gala event. Trout are purchased from the fund and planted the day before

Do-Fly Club "adopted" Neshannock Creek for stream improvement. Shown is the PFC Jack Gerson Camp area.



the Derby in the two-block city stretch of water and only youngsters can fish from that time throughout the duration of the derby. The fish are by no means exhausted when the event is over and many are still there for the rest of the trouters to do more in-town angling.

The Neshannock is a stream stocked originally only because nearby Slippery Rock received a massive dose of pollution in 1964 and its trout were detoured to the alternative water body.

However, it began to yield perhaps the greatest return in put-and-take trout in the Commonwealth. It is now avidly fished by thousands, many of whom have become simon-pures associated with the club who put as many trout back as they catch. It is one of the most approachable streams, has a great riffle and pool ratio, plus unparalleled wadability.

The trout, too, have acclimated and adapted well, adjusting to the stream's cahills both gray and cream, various caddis, ginger quills, and brown drakes, plus numerous other insects increasing in species and numbers as DER's pollution regulations have taken effect more and more. Even the cry that the waters are too warm have been discounted somewhat as numerous overwintering trout are being caught each succeeding year, providing that extra bit of fishing interest.

The whole program sponsored by the one small club is an example of how interest grows when a trout stream is used well. It is expected to become more fascinating in the future with possible gabion construction to provide added habitat and cooler water for more trout.

Those working hard over a period of years at both hatchery, derby and fly-tying school including president Dom Petrovich, Stan Miksza, Mike Wheale, Mike Ferchaw Jr., Danny Toy, Al Siemanski, Bill Boak, Ray Bales Jr., Buddy Johns, Goose Olescyski, Don Watters, Glenn Badger, Merle Zeigler, Dave Robinson, Bill Doran, Hack Wilson, John Buckner, Felix Crause, and Wrotny.

The dedication such men show makes a sportsmen's club a great asset to any community. It also shows how much can be done by just a few who decide to *do something for someone else.*

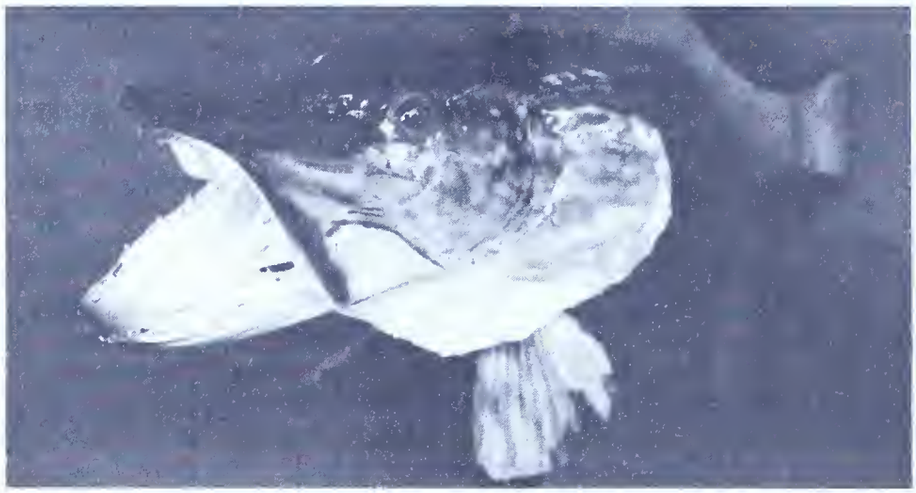


Anchoring the downstream limits of the annual Do-Fly Trout Derby is this main bridge of New Castle's downtown shopping district.

Club President Petrovich measures a big trout brought in by a youngster hoping to take home one of the Do-Fly Trout Derby prizes.



Trophy by Mistake!



by Jim Donahue

We were fishing for perch at the head of Presque Isle Bay just west of the Erie Yacht Club. It was mid-September, and our wire basket, draped over the side of the boat, was bulging with perch in the ten to twelve-inch class. We must have had a hundred. We had been encountering some difficulty in that every fourth or fifth fish we boated was a golden shiner or small perch under five inches. They were a nuisance.

Our spinning outfits were equipped with spreaders. The spreader, which was weighted in the center with a one-quarter ounce lead, permitted the use of two hooks. Doubles were not uncommon.

Fishing with both minnows and grubs we somehow managed to keep two rods going. The one rod I was using was actually my trout rig with four-pound-test line; the other was my bay rig with ten-pound-test line.

Since the depth of the water was only five feet it was easy to keep two rods in operation. Once the spreader hit bottom we would reel it up a foot, set the brake on the spinning reel and there was no need to reel in line at all. It was just a matter of swinging the fish into the boat by raising the tip of the rod high into the air. Several times the perch, which were lightly hooked would fall from the hook onto the deck of the boat. This was easy fishing. Catching three or four fish with just one baiting of the hook.

It had been 6:00 a.m. when we launched our boat. It was now 9:15 and Ellie, my wife, decided it was time for coffee. She put up her rods and began to open the thermos and unwrap the homemade cookies. I was in the stern of our fifteen foot runabout and at the same time she popped the lid on the thermos my rod, the one used for trout fishing, bent in a sharp arc.

Raising the tip in the usual manner to set the hook I found it would not come. There was no time to set the drag on the reel. Working clumsily, I managed to open the bail on the reel and allow the line to run free. At the same time I yelled, "Net!"

The four-foot-long, two feet in diameter landing net was wedged between the seats. Ellie scrambled for it and pried it loose. In the process the handle became caught in a loop of anchor rope. She tried to release the handle. Frantically, she managed to free the net and, in doing so, our supply of hot coffee soaked my shoes as it ran over the deck of the boat.

The first thought to cross my mind was "sheepshead." We landed a couple of two-pounders earlier in the day. The first run was relatively short, perhaps twenty-five feet.

Still I had not set the drag.

As the bail snapped shut I began to reel in line. Then, for the first time I saw him! A long dark object, at least two feet under water and thirty feet from the boat. Suddenly I realized my efforts to reel were getting nowhere and the rod was again bent in a dangerously sharp arc. I snapped the bail open for the second time.

"Looks like a bowfin," I shouted as I became somewhat relaxed. At this point it made little difference if the fish broke my four-pound-test line or not. Or so I thought!

This run was much longer — at least seventy yards of monofilament peeled from the open faced spinning reel. Again I started to reel as I instructed Ellie to bring in my other line and net the fish head-first . . . if he came alongside.

After gaining maybe twenty turns of the reel, all heck broke loose. The pointed snout, the vicious look, the bean-shaped spots, the entire three feet of fish danced across the top of the water. Northern pike, and a big one!

Again a run of thirty yards. At this point there was so much line off my reel I could see the backing of braided line. I had no time to set the drag now, I just flipped the bail open when the fish tugged hard. What a mess to be in! What a way to play a big fish!

It was a full ten minutes before the fish came alongside and Ellie saw it for the first time. She had the net in the water ready and waiting. When she saw the monster she panicked and the net came up empty.

The fish swirled like some beast out of the past and broke water not ten feet from the boat. Another run. "Oh my God," exclaimed Ellie, "He's huge!"

The northern managed to neatly wrap the line around the anchor rope. Again he thrashed the top of the water with his tail. Luckly, he managed to unwrap himself just as quickly as he fouled the line. Thoughts of a broken line crossed my mind as the fish headed into a heavy weed bed forty yards from the boat.

My next action proved to be the right one and helped bring the northern to net. I instructed Ellie to bring in the anchor. The slight breeze that was blowing came from the opposite direction the fish was headed.

Obviously exhausted, and over thirty yards from the boat, the fish surfaced. As the boat drifted, pulling him along, his desperate attempts to escape became less violent.

After drifting about two hundred yards he lay on his side. Ever so carefully I inched him alongside the boat. Ellie didn't miss with the net this time.

Why a trophy by mistake?

The thirty eight and one-half inch northern pike had taken a number eight hook baited with a single grub — a Pennsylvania trophy on panfish tackle! But, I'm not complaining.

"Falling" for Pickerel

by Frank J. Radzievich

The pickerel is a fish for all seasons. They hit in summer heat waves, through the thick ice of January, and the cold rain of early March. But for those anglers in the know, there is no time better for pickerel than now. Three heavy pickerel on my stringer verify that fact, plus the memory of three more released for another time. Crisp nights warn of the upcoming winter and less food, so the pickerel grub down with reckless abandon. The smart angler, knowing how pickerel feed, gets panicky in early fall. But, don't oil the gun and put away the fishing rod too quickly — the best pickerel weather of the year is at hand.

On this particular day, I was fishing a typical pickerel pond, or better yet, a pickerel *haven.* The pond is shallow and weedy, with thick, high marsh grass and sunken logs that form snag-filled hiding places for fish. Forage fish are prevalent; there are daces, delectable golden shiners, suckers, and little pickerel. These waters are prime real estate for "chains," although the latter are not finicky and call any freshwater home.

I use the standard means of plucking pickerel out of the water: two spinning rods baited with four-inch golden shiners. If the fish want some fancy movement, I'll take one of the stationary rods and put on a red and white spoon or a silver minnow. That is the total variety I use for pickerel. If the fish don't go for the above methods, do not get fancy and try fifty other methods. Leave the "How to Fish" encyclopedia at home — it is not worth carrying along. There is one cardinal rule with pickerel: when they are hitting, they will hit almost anything. At other times, the angler has to wait . . . look at the scenery, or read a paperback. Time will pass and so will the disposition of the fish.

The "keeping size" of pickerel in Pennsylvania is fifteen inches. An average fish will grow up to two feet in length. Big ones will go up to five pounds and this happens often for, like the other members of the pike family, the pickerel is quite a glutton for minnows and frogs.

The name chain pickerel is derived from the series of dark markings on the fish's side, resembling the unjoined links of a chain. The beauty of the fish is overlooked by many. It is green with a gold tinge, the gold becoming lighter on the lower part of the body. Add this coloring to the sinister and malevolent snout, with sharp teeth, and one has a handsome but evil-appearing fish.

Maligned as a fighter when hooked, the pickerel deserves a better reputation as a gamefish. It makes slashing, torpedo-like rushes when hitting a lure and will roll on the top — sometimes they break water completely. A real thrill is in store every time a pickerel follows a lure into the shoreline. They have been known to jump out of the water after a lure, right at the feet of the fisherman. My biggest chain was taken this way.

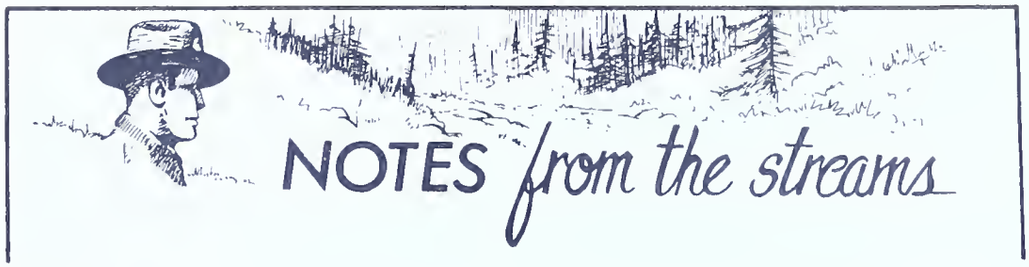
I was casting the shoreline of a clear-water, but weedy lake. A really big fish followed my red and white spoon . . . I stopped reeling in line about three feet from the water's edge. There we were, the biggest chain I had ever seen and a still lure. Finally, I jerked the rod tip up and in the process slapped the fish in the gills with the lure. Instead of vanishing into deeper water, the fish slammed its jaws down on the lure and took off, firmly hooked. No one who had to land *that* fish would doubt the game quality of most pickerel.

Still-fishing with a bobber and shiners is a peaceful and idyllic experience, especially in the autumn, but beware — all that changes when the plastic bubble disappears from sight. A chain pickerel will rush to take a shiner, run with it, hold it, and then start running again. The hook should be set on the second run. Pickerel usually swallow the shiners before the second run. The hook will set easier then, for the fish has a leathery mouth and gill area. Naturally, there should be a wire leader attached to the shiner. The needle-sharp teeth of chain pickerel are as devastating as the teeth of pike and muskies.

Fishing that day was a treat for the eye, exercise for the body, and a future joy for the palate. Pickerel have a delicate flavor, making them good table fare. As the evening approached, I put in a hard hour of casting the shoreline with a metal spoon. My lure was bouncing through the spaghetti-like "pickerel weed" when a fast moving "V" overtook my lure. However, instead of smashing into it, the fish shot down deep into the weeds. It will be there . . . I will be back. It was a fitting ending for a beautiful day spent "falling" for pickerel.

When pickerel fishing, you can always expect your share of youngsters!





CREDO—

Due to the scheduling of an evening meeting, I was killing an afternoon ice fishing at Francis Slocum Dam with my wife and a young friend. The day was absolutely beautiful: sunny, no wind, and the fish were fighting over our grub-baited jigs. As the sun started its descent, two young fellows came out on the ice carrying fishing tackle, and stopped to chat. It was obvious that they were amazed by our catch. They chatted for a while, then the one fellow uttered words that I shall long remember and often quote in the years to come. They were, "*Can't get 'em wishin'... let's go fishin'!*"

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

UNINFORMED FISHERMAN?

One of the men who helps me with float stockings on Big Deer Creek was doing his part, along with his friend, in stocking a stretch of stream in the Indiana Township Park, when a fisherman charged out into the stream and in a loud voice told them that he *"saw what they were doing,"* and that *"netting fish and putting them in a trap was illegal,"* and that he *"was going to tell the warden if they didn't stop it!"* They didn't . . . and he didn't!

Gerald T. Crayton
Waterways Patrolman
Allegheny County

DETERMINED!

During the Northeast Fishing and Boating Expo held in Wilkes-Barre, a young lady of about 7 or 8 came up to the booth that I was working at and she had several copies of the *Angler* magazine and several copies of the *"Snake Books."* I asked her if she way enjoying the show and that she sure had a lot of reading to do when she got home. She informed me that she wasn't going to *read* the books she had and I asked her why. She stated that she was going to *sell* them. I asked her how much she was going to get for them and she said she had already sold a "Snake Book" for 3 cents and she was going to sell the *Anglers* for $1.00 each! I showed her the right price on the front, but she said, ***"I'm going to get $1.00 for them!"*** and off she went on her selling campaign. We had better hire that young lady!

Joseph E. Bartley
Waterways Patrolman
Pike County

LICENSES SALES

Even though there was a much-needed license fee increase this year, the issuing agents in the Pittsburgh area were *sold out* the Monday following the opening day of trout season, a good sign of another year of increasing sales.

Gerald T. Crayton
Waterways Patrolman
Allegheny County

NOT QUITE!

This incident was passed on to me from Melvin Lemley, Green County's delegate to the Federation of Sportsmen's Clubs.

It seems Melvin received a call from a man who was complaining about our float stocking of the Templeton Fork of Wheeling Creek. Now Melvin had assisted with this project and feeling that we had done a fine job there, did not take too kindly to this criticism. After further discussion on the subject, he asked the complainer just what he thought float stocking consisted of. The man then informed him that float stocking was *"putting all the fish in one place and letting them float down the stream."* Melvin then informed him just how we stocked this stream and ended up with a satisfied caller.

Gary Deiger
Waterways Patrolman
Greene County

"JOHNNY" ON-THE-SPOT!

While on an all-day stocking detail of Harveys Creek and Lake Silkworth, I saw a passenger on one of the stocking trucks whose face is getting very familiar — not only here in Luzerne County, but many other counties here in the northeast, as well as in other areas throughout the state. This man is Deputy Waterways Patrolman John Shotick, who is normally assigned to work with Officer Jim Hazen from Schuylkill County. John not only assists Waterways Patrolman Hazen in his own assigned county, but he also manages to flag down the stocking trucks when they are en route from the various hatcheries to any county they happen to be going, and gives very appreciated assistance, anyplace and everyplace.

"Keep up the good work, John!"

Most of the time John sits along our Interstate highways until he spots a stocking truck. The drivers, knowing Deputy Waterways Patrolman Shotick, pull over and John climbs aboard for the round trip.

Claude M. Neifert
Waterways Patrolman
N/Luzerne County

"PERSON?"

Recently I was assigned to work the West Penn Sportmen's Show at Pittsburgh, selling fishing licenses. At times we see some interesting items on the applications which people fill out for their fishing license. There was one in particular that caught my attention as I copied the information, I came to the part where it says *"Sex,"* and one individual put down *"mail."* I was wondering if he was a *Mailman.*

Robert L. Kish
Waterways Patrolman
Cambria County

JOGGING?

All waterways patrolmen, deputies, and other individuals who have assisted with the trout stocking program are familiar with the many difficulties that can be encountered. Muddy roads, deep snow, frozen streams and lakes, muddy and slippery stream banks, and slick rocks and stream bottoms are common dangers that are dealt with routinely. Deputy Waterways Patrolman William Gifford and I recently were confronted with a rather unusual "hazard" while inspecting Enlow Fork prior to stocking trout there preseason. We were walking up the stream in a rather shallow area, and just as we were about to exit from the water we heard something noisily splashing its way toward us from around a bend in the stream directly in front of us. We both stopped, and before we could figure out what it was, a medium-sized deer burst around the bend and into view. It was running full speed down the middle of the creek and passed within a few yards of us without ever breaking stride, and paid us no mind whatsoever. The deer continued running

down the stream for a few yards, then broke out of the water and proceeded to disappear up the hillside!

Gary E. Deiger
Waterways Patrolman
Greene County

THIEVERY!

It was apparent that some fish were disappearing at one of the CO-OP Nurseries, so an all-night surveillance was in order. Well, about an hour after the watch began the first poacher came stealthily into the nursery area and Zapp! A trout was taken. Minutes later, a repeat of the first. By 5:00 a.m. the scene was repeated five times.

The final total was an even dozen poachers, and at least that many trout were taken. However, no arrests were made. These poachers were house cats! Yep, just plain old tabbys.

Warren Singer
Waterways Patrolman
Adams/N. York Counties

". . . THIS THE PLACE?"

Now I know how rumors get started. During the preseason stocking of Deer Creek in Allegheny County last year, we were using float boxes to evenly distribute the trout throughout the length of the stream. While we were starting to float one section of riffles, the box caught in the current, turned sideways, and tipped up, sloshing about fifty extra trout into that spot.

I later mentioned this to several youngsters I met along the creek the following day, telling them it would be a good area to fish on opening day. Next week, as I was driving by, there was a *crowd* standing along that area of the stream. As I slowed down, one man ran over and shouted, "Hey, *Warden,*" is this the place where the fish truck overturned?"

Don Kingery
Deputy Waterways Patrolman
N/Allegheny County

OPENING TIME—

The first day of trout season this year Waterways Patrolman Stanley Plevyak and I were patrolling the Unami Creek. The time, 7:45, fifteen minutes before the season opened. A boy in his teens walked up to the car and asked what time it was. I responded telling him he had fifteen minutes before he could fish. He started to walk away, and then looked back and said, "Are you fella's going to blow the car horn or a whistle to start the trout fishing season?" I told him that we had no plans of doing that. With that he said, "Aren't you even going to come down to the stream for opening time?" This time I told him to go down to the stream and if we didn't make it on time to start without us.

Barry R. Clymer
Special Waterways Patrolman
Bucks County

FAST LEARNERS!

Asked to come up with a unique program for a Sixth Grade Outdoor Field Day, Waterways Patrolman Messerle initiated a fillet and fry demonstration at Manheim Central on May 23 of this year. Sunfish from Speedwell Forge Lake were filleted and deep-fried for more than 100 students who marveled at their great taste. About twenty of the students actually filleted their first fish ever and it was amazing to see the skill which was demonstrated by both boys and girls. Looks like a great way to encourage more harvest of the panfishes!

Stan Paulakovich
Asst. Supervisor
Southeast Region

PART OF A PATTERN?

Of the many questions asked of Waterways Patrolmen one very frequent one is "Why are you guys *armed?*" Perhaps the following best answers that question.

Since I have been in North Lancaster County, I have arrested the following violaters who have since committed the following crimes:

Violator 1. Fishing without a resident license — 3 years later arrested for arson.

Violator 2. Fishing without a resident license — 5 hours later arrested for intent to incite riot.

Violator 3. Littering — 14 months later arrested as a sniper and also charged with attempted murder.

Violator 4. Fishing without a resident license — 3 weeks later committed murder.

Kerry L. Messerle,
Waterways Patrolman
N/Lancaster County

HAD NO IDEA . . .!

Recently the Blair County Conservation Officers Association (a group made up of Deputy Waterways Patrolmen and Deputy Game Protectors) held a field day for the Blair County Big Brothers and their Little Brothers. Deputy Tim Gracey was demonstrating fly tying when a lady who was with the group walked up about halfway through Tim's presentation. Pointing at the various necks that Tim had laid out, she asked "What are those?" to which Tim replied that they were mostly chicken feathers. Somewhat taken back, the lady then stated that she really had no idea that fish ate chicken feathers. Tim had to finally explain that the feathers were used to tie the flies that hopefully caught the fish.

Walter A. Rosser
Waterways Patrolman
Blair County

YOU "PEEL" THEM?

No matter where we go someone always has a question to ask in regard to fish. Recently, I was in an automotive store in Ebensburg when an individual came up to me and stated that he caught one of those "Banana Fish." I hesitated for a moment, reluctant to ask what a "Banana Fish" was. So, I finally asked what type of fish was he talking about. The answer was very simple: he replied that he caught a *Palomino* trout.

Robert L. Kish
Waterways Patrolman
Cambria County

POOR BUGS!

During a conversation with a group of sportsmen, I was expressing my dislike for litterbugs. One fellow remarked, "Why pick on the poor insects by calling them litterbugs? Call 'em the slobs they really are!"

Don Parrish
Waterways Patrolman
McKean County

NO INSTANT SUCCESS!

During one of my inseason trout stockings I noticed only one car was following the stocking truck whenever we left our meeting place. At our first stop on the stream the individual in the car got a fishing rod from his trunk, ran down to the stream where we had put the fish, made one cast, ran back to his car and continued to follow us. For the next four stops he did the same thing: made one cast and ran back to his car. Finally, Deputy Waterways Patrolman Andiorio asked him why he didn't pull over and fish and his answer was that "*he had tried*" but, "*the trout were not hitting yet.*"

Donald Hyatt
Waterways Patrolman
Westmoreland County

Ashore & Afloat

by Gene Winters

September must rank at or near the top of the best boating months in Pennsylvania. Unfortunately, many boaters never find out because they put their boats in mothballs come Labor Day. True, the kids are back in school and family vacations are over. But what about the weekends until the really cold weather sets in? It may now be too cool for donning the skis or skinny-dipping, but a serene cruise by canoe, sailboat, or powerboat on the less crowded waters seems like a pretty fair exchange to me.

Gone are most of the pesty insects . . . the gnats and mosquitoes. A new peace looms over the lakes, ponds, and rivers that is unlike any other time, even spring. Maybe that's why some boaters find September *the* month for pastimes that the hustle and bustle of summer never allow. Boat camping or a night under the stars on a shoreline is often an ideal way to spend a September night. All you need is a place to stretch out in relative comfort for the night. If the nights are too cool, a sleeping bag on deck or on a ground cloth provides not only warmth but comfort as well. If your intended campsite along shore is on private land, it's a good idea to ask for the landowner's permission in advance. Few landlords will refuse permission unless they have been stung before by careless, thoughtless "nature lovers." Cleaning up the area and returning it to its original state before leaving is part of the "lease," even a free one.

Small boats, at anchor or even tied to the shoreline, are usually not the ideal place for mealtime cooking. The danger of fire or spills from a cookstove is often underrated. It's usually much safer to beach the boat and hold a cookout ashore. Be careful about open fires for cooking. Most areas (and individual owners) have restrictions or policies against open fires, even for mealtime use. Many boat owners carry a portable camping stove ashore to handle the chores.

In addition to providing more relaxed and uncrowded boating conditions, September is also a great month to begin some necessary housekeeping chores. Done now, things can be at a more leisurely pace and in a more orderly fashion. You'll be surprised how much more pleasant it is to tackle at least some of the chores in advance of the overnight arrival of "winter" weather and the necessity of a frosty haulout and storage.

While you're probably not about to winterize the engine and scrub the bottom at this time, you can do at least some general cleanup work. A good whisk broom and dustpan can do marvels in removing the summer's accumulation of sand and mud. There's plenty of time to get into the corners and hidden recesses where debris and moisture accumulate unseen. A great time for some spit and polish all over the boat.

Many times these chores can easily be done at anchor; it's not always necessary to beach the boat or haul it ashore. A good can of chrome or aluminum cleaner and polish can be applied to chocks and cleats and other metal parts. Now that the scorching summer sun is fast becoming a memory, temperature and humidity are ideal for application and removal of these compounds. Since you're stretching the boating season and plan to spend at least some of the time running, this won't be your final cleanup before winter storage (or shouldn't be if you continue running), it can be the major one and make for a much faster, better winterizing when the time does come to haul it out for the winter.

Owners of fiberglass boats should take a close look at the condition of their boat's gel coat. Small surface abrasions and scratches can be restored along with a sun-faded finish without too much effort by using a fiberglass rubbing compound. Beaching the boat usually permits cleaning and waxing the hull right down to the waterline. When you pull the boat for the last time, a quick wash is all she'll need and if it really turns cold, you can often get by with just a hose rinse *if* it's received some good treatment and care beforehand.

September on the water, at anchor or along the shoreline, also provides a good time to check out the boat's wiring, electronic and electrical circuits. Check the tightness of all wire terminal screws and, in particular, watch for rusty connections and terminals. A light dusting with a fine grade steel wool will usually restore the brightness and electrical connection and a light coat of petroleum jelly will keep it that way over the winter storage period. Or, as some boat owners prefer, you can apply a light coating of *clear* silicone rubber over all wire connections to provide more permanent protection from moisture and corrosion. The only disadvantage of such a coating is it makes it a little harder to check wire connections for tightness later on next season. Making sure the wires and screws are tight *before* applying the rubber coating usually eliminates future problems and the rubber eliminates greatly the chance of wiring vibrating loose during next season's running. Should, for some reason, you later need to gain access to a terminal, the rubber is easily peeled away or removed with a penknife.

If you lived with leaks during summer rainstorms, now's a good time to go after these problems. The weather conditions should cooperate in applying and working the sealants and caulkings. Pay particular attention to windshield and cabin areas where they join the main deck. If you have an accessible bilge, don't forget to include this area in your general housekeeping chores as well as iceboxes and baitwells.

Sailboaters have many of the same cleanup chores to perform, also. While they often have no power plant to winterize or condition, they do have sails and masts that should receive special attention. A close look should be taken at masts, booms, tillers, and the like, checking for hairline cracks and tears as well as the more obvious. If sails require attention or replacement, get to your friendly sailmakers soon after you haul out for the winter to make sure they're ready to go next spring.

Most boats develop trivial but annoying problems during the season that are lived with during the summer.



Jacket weather is a tip that really cold weather is just beyond the horizon. Get in a cruise or two while you can, but work away at those many light chores which must be done before bad weather sets in.



But they'd better be taken care of now, not left to develop into major problems next season. Besides, if you wait till haulout to look after them and the weather suddenly turns unbelievably cold, they may not get tended to at all and be completely forgotten come next spring.

If you don't regularly carry a notebook along with you, do so during your fall boating. Make notes and more notes. Put down in writing all chores to be done when you haul her out and especially those that you, for one reason or another, must put off until spring. Keep a record of the chores you *do* perform at this time, as well. Then, make a final note to remind you where you store the other notes during the winter months!

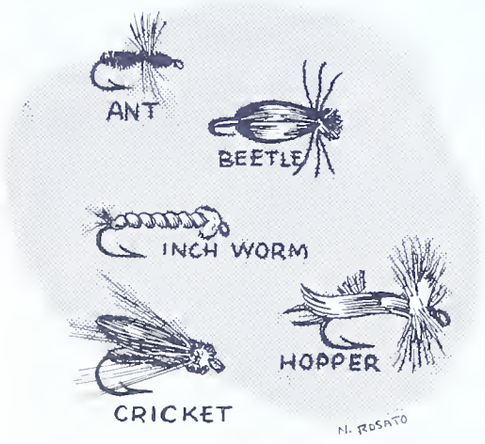
September can be a great month around the water in Pennsylvania . . . perhaps the greatest. It certainly is an ideal time for a leisurely, even enjoyable approach to the light housekeeping and maintenance chores that should be performed. And the weather conditions are usually ideal or much better than you'll find at a November first haulout. Someone once said, "Maintaining a boat is half the fun of owning it." While I'm not sure I'd go quite that far, I have a feeling the fellow who said it looked forward to September in Pennsylvania.

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: A big brown trout is wary and cunning, and when hooked a rugged battler. Few fish of other species die of old age, but many lunker browns live out their life span, even in hard-fished waters.

Aquatic insects are available to fish in cycles, hatches occurring at intervals and lasting a couple of hours at the most. Land insects (terrestrials) are available at all hours all season long, so imitations of terrestrials belong in every angler's fly box.



Light lines for both spinning and bait casting have some distinct advantages. They are less visible to the fish, can handle lighter lures properly, and still control a hooked fish if the drag is set properly.

A tight line is essential in surface fishing for bass. A strike can come just as the lure touches the surface, or a second or two afterward, or at any point in the retrieve. The fish will be missed if the angler has no control over a line that lies loosely on the surface.

Trout are not the only fish that feed on mayfly nymphs. Bluegills also devour the insects as they hatch. So, mayfly nymphs used for trout angling are excellent bluegill lures.

A noisy surface lure, worked around lily pads and weeds, can mean the downfall of a hungry bass, pike or pickerel.

Twigs or tips of weeds, extending just above the surface of the water and often quite sparse, are an invitation to fishing with surface lures. They are indications of brush or submerged weeds that attract largemouth bass and members of the pike family. A surface lure will travel among and through the projections and attract fish that are foraging in the area.

Even when using a bobber, a minnow, worm or other bait should be lifted gently from time to time to make sure it is not caught on weeds or an obstruction. In addition, the slight movement of the bait in the water may attract a fish that has not noticed it before.

Edges of fast water are prime fishing areas. Swiftly flowing water carries food to the fish, which are reluctant to enter strong currents to feed. They will, however, move along the edges of the current, where they can hold in a comfortable position while awaiting food.

Long leaders are not necessary in bait fishing. The weight of the bait takes the leader down into the water, where it is not plainly visible to the fish. Four or five feet of leader is sufficient when bait is being used.

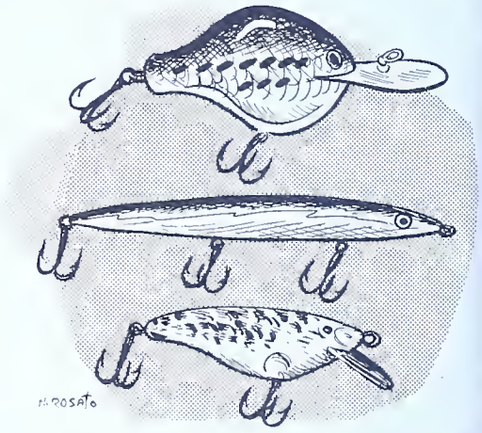
Outboard motors, operating at high speed, can put down fish in shallow water, so it pays to slow the boat some distance from a fishing area and to let it drift quietly. On the other hand, studies show that fish are not usually disturbed by motors when they are in deep water.

A boat is not necessary in fishing a pond or lake with weeds in the shoreline shallows. If the bottom is not too soft, you can get around quite nicely with the aid of waders. You can get to areas you cannot reach by boat, and a cautiously wading angler is less likely to disturb the fish.



Keep calm if a bass strikes at a lure and apparently misses it or refuses it. Let the lure remain quietly in that same spot. Wait even as long as two minutes before imparting even a very light action to the lure. The fish will make another pass often enough to reward the patience you need to use such tactics.

Crank baits made of wood or plastic are fine bass plugs. Wooden plugs are best, plastic plugs cheapest. In a wide variety of shapes, sizes and colors, they are designed for fishing on the surface or at depths of up to 10 or 15 feet. With a steady retrieve, they have built-in action, but at times they can be made more effective by an erratic or stop-and-go retrieve.



Don't let an old-time plug lie unused in your tackle box. Use it from time to time, and you'll probably discover that it is just as good (or even better) than some of the glamorous new lures.

Don't turn green with envy when you read about the fellows who catch monster fish in big lakes and rivers, or the oceans. You can have as much fun catching small fish from little streams. A 10-inch trout from a mountain brook is as much a trophy as a 10-pound trout taken from a big body of water.

You don't need a sinker when fishing with stone catfish. The baitfish will head directly for cover somewhere on the bottom.

Smallmouth bass are caught more often on sunken rather than surface lures because these fish prefer deeper water where surface lures are not really effective. The exception to this rule is a creek or small river, in pools where even the deepest water is shallow enough to make the floaters visible and attractive to the fish.

A plug that floats until the retrieve is begun, then travels down into the water when it is reeled in, and rises back to the surface when the retrieve is stopped is a very effective lure. It represents an injured minnow struggling to stay down in the water and survive. Very often a fish will strike the lure when it is rising slowly toward the surface of the water.

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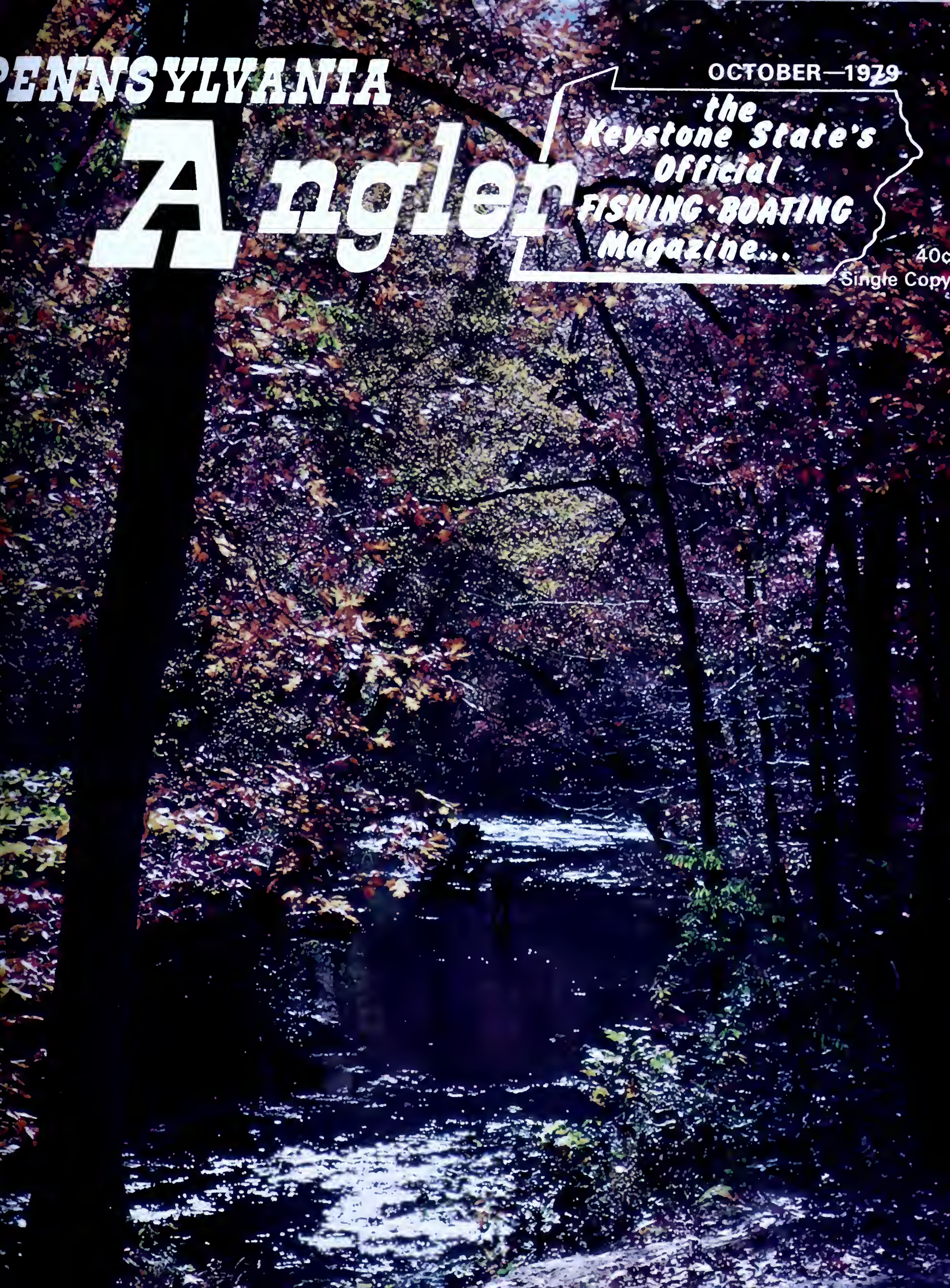
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PENNSYLVANIA
Angler
OCTOBER—1979
the Keystone State's Official FISHING·BOATING Magazine...
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"STILL LOOKING GOOD!"

Our great Commonwealth has taken a number of beatings so far in 1979. Since the end of June, black eyes from adverse publicity have already shown up in what had to be an expected decline in fishing license sales. Tourism has suffered and we still consider that the second largest industry in Pennsylvania.

Certainly the fuel shortage and the attending increases in the price of gasoline have had the most effect. Although the odd/even method imposed by the Governor has now been lifted, it costs about twice as much to move about today as it did a year ago, and there isn't much we can do about that.

In early August, a ripsnorting storm came through Southcentral Pennsylvania with 98 mile per hour winds, and the attending damage was enough to make people scurry for their cellars.

An outbreak of polio among the Plain People, particularly the Amish, certainly didn't help — particularly in those areas where the sect is referred to colloquially as the "Pennsylvania Dutch." One county's tourism was down by 80% because of this, in spite of the program to inoculate people who had previously objected.

Pollution of the waters of the Commonwealth still continues and we have a constant uphill fight to preserve the water quality standards that make this so-called industrial state a paradox. The latest pollution to attract extensive public notice comes from the Susquehanna River contamination by hazardous industrial wastes dumped into an abandoned mine in Pittston. Slugs of PCB's have been allowed to occasionally flow from improper storage areas; cyanide leaked from an underground storage tank and polluted a stream — killing most of the trout stocked there. Other atrocities to our waters have occurred from the dumping of hazardous chemicals such as dichlorobenzene, toluene, xylene, napthalene, and other phenol derivatives.

And finally, the incident that really put the Commonwealth of Pennsylvania, Harrisburg, and a place called Three Mile Island on the map — an incident handled so poorly by Metropolitan Edison Company, and the Nuclear Regulatory Commission, has cast a cloud, albeit not radioactive, over the state to the extent that the only real attraction in that vicinity now seems to be that morbid curiosity of tourists.

In so many ways we have taken black eyes we don't deserve, and the people who should have been out enjoying our unique natural resources have just not done so. Pessimism, more than optimism, prevails.

We want you to know that the Pennsylvania Fish Commission has not lost the least bit of faith in this great Commonwealth. For one thing, the Department of Environmental Resources is prosecuting those criminals that foul our nests and our waters to the utmost limits of the law. We cooperate with DER in these prosecutions and our record to date shows a 15% increase. Aggressive programs by DER to control storage and disposal of hazardous wastes are paying off. We are expanding our fishing and boating access at Goldsboro, in the shadow of the cooling towers of Three Mile Island, because the fishing is great and there has been no deleterious effect to aquatic life in the Susquehanna River because of that TMI incident.

Last month we awarded Certificates of Appreciation for Outstanding Service to strike force attorneys in DER for outstanding cooperation with the Fish Commission in pollution cases. Richard Ehmann, Howard Wein, Elissa Parker, and Robert Ging have been working hand-in-hand with our field personnel and have proven time and again to be what the Fish Commission considers "Good Guys."

What Pennsylvania needs is a continuation of this strong enforcement of our air and water quality laws, a constant eye on those industries that tend to be polluters, and a lot more backing from the citizens of Pennsylvania and surrounding states who really still believe that Pennsylvania is a great place to live, work . . . *and go fishing.*

Pennsylvania — you're still looking good!

Ralph W. Abele
Executive Director

Pennsylvania Angler

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ON THE COVERS

Our covers this month offer the traditional October invitation to one and all to share autumn's beauty as found along Pennsylvania's waterways. Generally, one is completely alone; but, look a little closer. Deep in those shadows on our front cover there's an angler! Not only that, he had a fishing partner upstream, out of sight. It was one of the few times we've ever encountered a "crowd" on a trout stream in autumn! Photographs by the editor.

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James F. Yoder, Editor

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Waterside Wanderings

by Linda Steiner

Not being one of the world's most successful anglers, by necessity I spend a lot of time looking into the water, hoping the fish will take my bait. At times all I am able to do is stand by and watch as the trout flash around whatever flies I present or go on about their business, oblivious to what I consider an excellent offering.

So, I often find myself a "fish watcher" — which isn't necessarily all bad. The angler whose only interest is in bringing a fish to net misses a lot of what's happening in the underwater world. It's almost as much fun to stand back and observe fish behavior (at least we unlucky anglers tell ourselves that). In order to be a fish watcher, you don't need a pair of binoculars, a field guide and a funny hat. All that's required is some spare time by the waterside, and perhaps a pair of polarizing sunglasses to cut the reflected glare.

I am partial to this time of the year, when the colors of the autumn leaves have reached their zenith. There's not a more productive time for the sportsman, a fact that hunters have always known and smart fisherman are just beginning to realize. Brilliantly colored trees form a bright canopy for the fisherman as he wades and plies his fly rod or eases his boat across a pond, breaking and mingling the leafy reflections. The reds and golds rain down on him when a breeze passes, adding the warmth of color, coming to rest on the dark water.

Beneath this radiance is another show of color the average fisherman misses, but for which the fish watcher waits. The trout of autumn are dressed in bright hues to rival the leaves, announcing that their spawning time has arrived.

Like anxious beaus dressed up to go "a-courtin'," the trout wear their vibrant colors and the springtime fisherman, who is accustomed to catching newly released hatchery trout, may be surprised at what a summer of living on stream food and the onset of the spawning season can do for adult trout. Many of the other fishes of the state spawn in the spring and early summer, but the brook and brown trout are naturally fall spawners while the rainbow has been known to spawn in either early spring or fall.

A small stream in northwestern Pennsylvania, a feeder to the



Allegheny River that is closed to fishing in its lower reaches (as it is Fish Commission nursery waters), provided me with my first good view of the spawning dress of trout. Here were a number of brook trout, originally hatchery fish, that were crowding upstream and chasing each other as the spawning urge increased.

Although normally nearly invisible in the shadowed and sun-dappled water, now the trout's bright orange, white-edged fins contrasted sharply with the dull stream bottom. The brookies' bellies had gone orange, their backs mottled green and yellow and their sides were sprinkled with bright blue spots centered with red dots. The native brook trout I've seen in the fall are even more attractive with green, orange and hints of purple in their mating colors.

But in that clear creek water were more interesting trout. Big rainbows were cruising the larger pools, and I could see that their red side stripes had widened, spreading into a bright area on their cheeks that was pink, crimson or orange. The males had become rather dark with intense red stripes, quite a change from the pale rainbows I'd caught earlier in the year, which had only a touch of red along their sides.

The main attraction in the stream was a huge brown trout that had just run upstream from the Allegheny River and was finning in a deep pool with the resident trout. How many more of the trout had swum upstream was not known, but this big fellow was an obvious addition. He was a heavy-bodied golden brown and his sides were decorated with dark dots and firey orange spots. He was the most beautiful trout I'd ever seen.

Why do I say it was a "he"? Besides the colors of fall males being more vivid than females, like birds in the springtime, both that fish and the other male trout showed a "kype," an extension of the lower jaw that makes them look "hook-jawed." It's especially apparent in the spawning season, but is also observable at other times of the year on mature males. On big fish, the kype may be severely hooked, giving the trout the appearance of having a long head. By comparison, a large female's head looks small for her body.

I have even seen this on tiny native brook trout, where the sublegal males I caught and released sported distinct kypes and were probably kings of their pools. But on no other fishes in the state are the kypes so obvious as the lakerun rainbows, or steelhead, of Lake Erie and the coho and chinook salmon that draw so many anglers northwestward in the fall.

Like the trout, the salmon have been feeling the spawning urge and gathering off the tributaries to Lake Erie to begin their long swim up the streams that feed that lake, and the fishermen gather, too. The fish are the color of silver and steel, strong and sleek from their stay in the Lake. But after they have been in the creeks for a while, moving ever upstream until falls or other obstacles block them, they darken, become grey-black, showing hints of pink. At this time they are weak and scarred and their lives are waning.

The steelheads are flashy silver on the lake edge, but to those who see them in the creeks later, they have all the color of streambred spawning rainbows. But unlike the salmon, they can return for another year in the Lake if they survive and come back to the mainland next fall a little bigger, a little heavier and a little more of a trophy to the fisherman.

The Lake Erie shoreline is a small part of Pennsylvania, and the rest of us can only fish its spawning runs occasionally. But the people of that area have known for some time about the success that can be had fishing for the spawners of many species that come to the shore. They know that the steelhead will swim miles inland and may show up in small local creeks to provide unexpected angling. Unfortunately, most anglers in the rest of the state don't relate this phenomenon to their own area. You may not have salmon nearby, but you probably have trout.

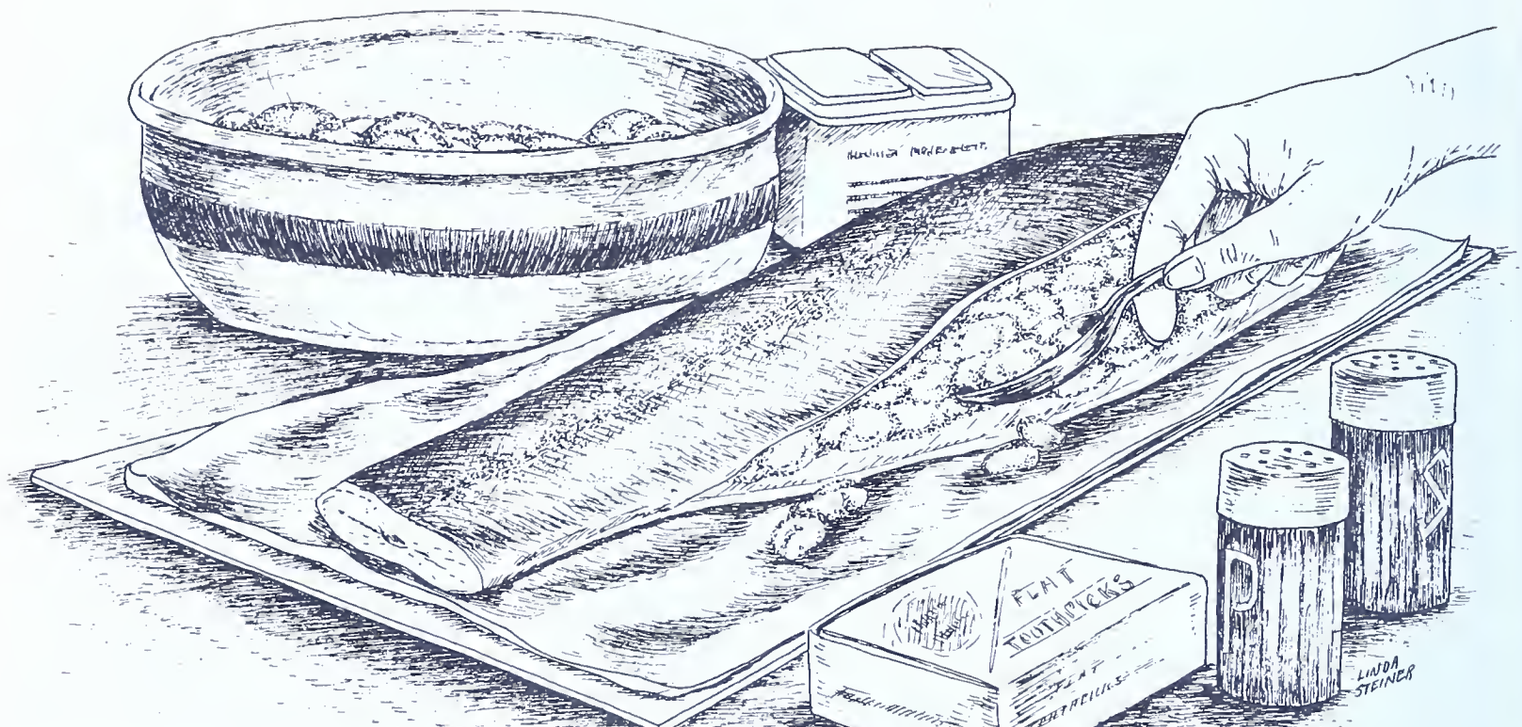
To the trout, spawning brings not only bright colors but also an urge to move. The fish look for clean gravel in which to spawn and most will swim upriver or into small tributaries to find it. Salmon and steelheads are often found in water so shallow their backs are dry and in drainages so narrow the huge fish can barely turn around. Little native brook trout will leave their own small streams to enter tinier feeders, while trout from the bigger creeks will be found entering typical "brook trout water."

Trout in the lakes will now be nudging into tributary streams, not only in Lake Erie, but in virtually all trout lakes across the state, though it is most noticeable in the larger ones. Why else the excellent fishing in the tailraces of dams in the fall and the unusual catches of large trout in little streams? Was that big brown really an unseen denizen of the small creek's deepest hole, or did it travel from the larger river or lake downstream? A few miles means nothing to a spawning trout. By fishing places that would appeal to spawning trout or block their upstream passage, the angler has a chance of catching his biggest fish of the year.

As a sometime fish watcher, that is, not always a successful angler, I see the trout going through antics that are part of their spawning behavior. They chase each other, the males most aggressive now, nipping other males and following the females. Every so often a roe-heavy female turns flat on her side and beats her tail against the gravel, stirring up silt and stones, digging the redd, or nest, a depression in the bottom. After their side-by-side spawning over the redd, the female uses her fins to cover the newly deposited eggs with more gravel, where they will incubate and hatch in the spring.

It was particularly exciting, but a bit frustrating, to be fishing a pool in an Erie County stream one autumn, many miles upstream from the Lake. The lakeruns were swimming in pairs, the males nudging and crowding the females. No matter what type of lure or bait I tossed, even if I put it right under their noses, they ignored it. But then, I guess some things take precedence over eating.

Several times one duo, both well over two feet long, paused to fin in the tail end of the pool, only inches from my hipboots, but oblivious to my presence. I guess they saw me as no real threat. The female began the vigorous nest building with her tail, while the male cruised in small circles around her. However, I never did get to see any actual spawning, and the fish just wouldn't bite. It was a fish watcher's dream, but an angler's nightmare. But don't let that keep you from trout fishing this fall. Remember, they're all not that finicky and even fish watchers catch fish . . . *sometimes.*



MEALS from the CREEL

by Margaret Karch Zaimes

At the turn of the 20th century, before the automobile dominated our society, Pennsylvania's Lackawaxen area was a popular summer retreat for heat-weary New Yorkers. Easily accessible by train, the many boarding houses along the banks of the upper Delaware were filled to capacity by city dwellers.

It was at this time Zane Grey escaped the confinement of a regimented dental practice and city living to move to a cottage on the banks of the Delaware at Lackawaxen.

Surrounded by the natural beauty of this wild and unspoiled country, he studied the surrounding creeks, rivers and woods applying the meager knowledge learned as a boy while fishing the Muskingum River near his boyhood home in Zanesville, Ohio.

It was while living in Lackawaxen he penciled his first stories on lined yellow tablets. Writing from dawn to dusk thru the cold winters, he warmed his hands frequently at a woodburning stove or at the fireplace.

With ever-increasing knowledge acquired while fishing with brothers "Reddy" and "Ceder," or with another outdoor writer, Alvah James, he learned to catch bass, a relatively new arrival in the Lackawaxen River, Shad in the pool where the swift moving Lackawaxen joined the Delaware, and trout in nearby Mast Hope Brook. Grey dramatized his early experiences while fishing those very brooks and rivers in an endless stream of stories published by popular outdoors magazines of the period, magazines read mainly by "parlor" fishermen, but intended to encourage fishing as a sport. Yes, his stories were dramatizations, but informative as well: the forerunners of today's "how-to-catch-it" stories.

A fishing trip to Lackawaxen is never complete unless I revisit the Zane Grey house (now a museum) for another look at his rods and reels and the jacket designs of his famous novels. Alvah James' daughter, Helen, is there, and makes each visit a new experience with some new or almost forgotten story of his life on the Delaware at Lackawaxen.

When husband Charley and I first started fishing the Lackawaxen Pool, we carried our boat to the water's edge and placed it in carefully, loaded it with our gear and pushed off to cast our lines for whatever was biting that day. Unfortunately, many a day was spent fishing without catching.

Today, we launch our boat at the modern Pennsylvania Fish Commission ramp into the junction pool and push off for another day of fishing in the quiet seclusion of the unspoiled area and to dream of catching a big one as Grey did. Early mornings, when the river is shrouded in mist, the echo of Grey's voice can be heard "try Divers Rock, they're biting up there."

Sometimes, while casting for trout on the Lackawaxen, a whisper drifting with the fast current seems to say "try the overhang around the bend".

As the years roll by, we have become more knowledgeable in the ways of fishing and have found many other productive spots in the pool where the Lackawaxen joins the Delaware. We have never found the right overhang on the Lackawaxen, there are many pools, bends and overhangs, riffles and rocks to taunt or challenge a fisherman's know-how.

Just as the brook or river has its idiosyncrasies, so does the cook when it comes to preparing fish. There are those who will shudder when anything other than cleaned and pan-ready fish arrives in the kitchen.

Guess this is normal—I really wouldn't want to slice my steak or roast from a whole steer — I'm not quite sure I'd know where to begin or if I should use a knife or saw.

There are generally five basic methods for cooking fish—frying, broiling, baking, poaching and steaming. The method used is generally governed by the size of the fish, fat content and texture of the meat. Also personal

preference.

If frying is the method you generally use, it will be done in one of three different ways — pan-fried, sauteed or deep-fried.

To pan-fry, we need a coating which will stick to the outside of the fish and form a crust to prevent the fish from becoming greasy or saturated with the cooking fat. When frying in a small quantity of hot fat or oil, fish will need turning to brown the other side. We make this crust by dusting the outside of the fish lightly with flour or by dipping the fish in milk or beaten egg before rolling in fine crumbs.

Pan-frying is excellent when preparing small fish, such as crappies or bluegills, and with fillets or fish steaks.

Sauteing, the second method of frying, is the quick browning of fish in very little fat or oil which is sizzling hot — *but not smoking or brown.* This requires shaking the pan to prevent the fish from sticking and flipping it over to brown both sides. A wide spatula is a handy tool to have around when turning fish. This method is good when fillets or steaks are to be served with a sauce.

The third method, deep frying, is the immersion of coated fish in deep and boiling hot fat. The fat for deep frying must be able to reach 365 to 375 degrees without smoking or burning. The temperature may be judged with a deep fat thermometer or by dropping a small cube of bread into the fat. If it browns in 60 seconds, the fat is of the proper temperature. If you have an automatic deep fryer you'll have no problem.

All surface moisture should be dried off fish before coating or dipping into batter. In order to maintain proper fat temperature, it is necessary that fish be at room temperature and immersed a piece at a time (after coating) in the fat.

The following Lemon Batter is excellent for deep frying.

1 egg
¾ cup water (cold)
juice of 1 lemon
1 cup flour
1 tsp. baking powder

Beat the egg until light. Mix in water and lemon juice. Sift flour and baking powder together into a bowl. Make a "well" in the flour and stir in egg mixture until smooth. Fish may be seasoned before dipping in batter.

Broiling, the second basic method for cooking fish, requires very high heat. Oven broilers generally produce 500 to 550 degrees of heat (the necessary temperature for quick cooking).

Fillets or split fish should not be more than two inches thick for good broiling. Frequent basting while broiling is needed to keep the fish moist. Melted butter or margarine is excellent for this purpose.

Fish for broiling may be marinated before cooking and the following sauce will do equally well as a seasoned marinade or basting sauce for broiling:

¼ cup oil (preferably olive)
¼ tsp tarragon
¼ tsp fresh parsley, snipped fine
¼ tsp dill seed or crushed fresh dill
¼ tsp black pepper, freshly ground
juice of ½ lemon and rind grated

Heat the oil in small saucepan. Add the herbs, pepper and grated lemon rind. Let it brew over very low heat for several minutes. Please — *don't let it cook.* Stir in the lemon juice.

Cool the sauce if you plan to use it to marinate steaks or fillets. Use it hot for basting.

Seasonings may be varied according to taste. If you don't like tarragon, use oregano. Bruise a piece of garlic to replace the dill seed.

Baking is the third basic method for cooking fish. This is done with large fish and with the skin left on. The fish is laid on its side in a pan large enough to avoid bending the fish.

Lacking a pan large enough to hold your fish, try lining a cookie sheet with a double thickness of foil (shiny side out), leaving enough foil to bring up the sides and ends to extend at least 2 inches above bottom of pan.

Best way to get this into the oven is to remove the oven shelf and place the lined cookie sheet on it and then add the fish. Return shelf to oven for baking. When fish is done, remove it the same way.

Fish may be cooked with or without stuffing. If unstuffed, brush cavity with lemon juice, then salt and pepper to taste and add fresh or dried herbs of your choice. Several slices of onion, green pepper or tomato may be inserted before cooking and removed and discarded before serving.

If you are planning to stuff the fish, rub the cavity with fresh lemon juice and lightly stuff it two-thirds full, leaving enough room for the stuffing to expand. Close the cavity with toothpicks or use a darning needle and white thread, and sew it shut.

Stuffed or unstuffed fish may be laid on several thin slices of pork fat, carrots or onions. I frequently use the outer leaves from a head of lettuce of thinly sliced apples.

Oven should be preheated to 375 or 400 degrees before placing fish in to bake. Measure baking time by thickness of fish. Allow 10 minutes for each inch of thickness and add another 10 minutes. Fish will be done when thickest part flakes easily when tested with a fork or toothpick.

A good basic stuffing will include the following ingredients:

1½ cup dry bread crumbs
or cooked rice
1½ tsp herbs of your choice
⅛ tsp salt
pinch pepper
2 tbsp finely chopped celery
1 tbsp minced onion
2 tbsp butter
¼ cup liquid (warm)

Mix seasonings with bread crumbs. Melt butter and saute celery and onion until translucent. Pour over crumbs and toss lightly until mixed. Add liquid and toss again until well blended. The liquid may be warm fish stock, milk, or chicken bouillon. Personal taste will dictate the blending of herbs to make it more or less highly seasoned.

The two remaining methods are steaming and poaching, moist methods for cooking — similar, but not alike.

Steaming is cooking *over* boiling water and poaching is cooking *in* liquid maintained at the simmer level. . . . as easy as poaching an egg.

Spices, herbs, vegetables and wine may be part of the steaming or poaching liquid to give added flavor to the fish.

Fish cooked in this manner may be enhanced with a lightly seasoned sauce such as tarter, cocktail, or lemon butter. No accompanying sauce served with fish should overpower the fish's delicate flavor.

A good tartar sauce can be made by mixing the following:

1 cup mayonnaise or salad dressing
1 tbsp chopped capers
1 tbsp chopped stuffed olives
and/or
1 tbsp drained pickle relish
1 tbsp minced parsley

Fishermen & Hunters are BOATERS too!

by Virgil Chambers,
Boating Education Specialist

Two young duck hunters, ages 18 and 25, lost their lives in late October on the cold waters of the Susquehanna River. The pair had been hunting from a shoreside blind using a 10-foot john boat to retrieve their kill. What caused the boat to capsize is unknown. Perhaps one of the men reached too far over the side and caused the unstable craft to turn over; perhaps someone stood up to shoot. Their bodies were recovered three weeks later. Neither victim was wearing a personal flotation device.

In early April two men were fishing from an anchored 12-foot outboard boat when one of the men caught a fish. In his excitement he jumped up in the boat, lost his balance, fell out of the boat and capsized it. He drowned. His companion was able to save himself.

Both of the above true stories are typical of those found in many accident scenarios. Each year too many sportsmen die from drowning in Pennsylvania lakes, rivers, and streams. Most drownings take place in early spring or late fall at a time when fishing and hunting activities are at their peak . . . and *when the water is cold*. Most of these result from capsizing or falling out of a small boat; most drownings could have been prevented. Drowning typically occurs because the victim made the wrong decision or did not realize the dangers involved in using a boat.

"Sportsmen" — hunters and fishermen — unfortunately do not consider themselves *boaters* and rarely take the time to familiarize themselves with the boat they use or the rules of safe boating. In choosing a small boat the sportsmen should concern himself with two major characteristics of the craft. Is it a *safe* means of transportation; and, how *stable* a "platform" is the boat for hunting or fishing?

Primarily, there are three types of small boats the hunter/fisherman uses. The utility boat (semi-V hull), the john boat (flat-bottomed hull), and the canoe. The most stable, and providing the greatest weight carrying capacity, size-for-size, is the utility boat. This semi-V hulled craft not only carries more weight than its flat-bottomed cousin of the same size, but is suitable for a larger horsepower motor and has a greater degree of maneuverability in rough water. The canoe, which has been a longtime favorite of the sportsman, has inherited classification as being unstable. However, the reputed instability of the canoe stems more from the limitations of the operator's experience, the balance of the load, and the conditions of the water. The canoe's past history also gives it a blemish as being somewhat less desirable than its counterparts, i.e., there are a greater number of fatal incidents involving canoes than in all other kinds of boats.

Independent of the type craft and far more critical to the preservation of life is the sportsman's behavior. Behavior undoubtedly is the single most important factor in the survival of the individual. Behavior indicative of good judgment, such as the wearing

Canoes and other small craft are often used as fishing and hunting "platforms." Knowing the limitations of your craft and how to handle it in less than ideal water conditions can save your life. Photo: J. Yoder



of a life jacket (personal flotation device), particularly when one is a poor swimmer or when hunting and fishing on cold or rough water, would alone reduce the number of boat-related fatalities among the sportsmen by more than half.

Unfortunately, there are other mistakes contributing to a mishap which are nothing more than violations of common sense. A procedure as simple as anchoring has been known to be responsible for a number of accidents on the water. Sportsmen should be aware that anchoring from the stern, especially in a current, could cause a capsizing or swamping of the craft. The primary problem with dropping the anchor over the stern is in the design of the craft. Boats have less freeboard (distance from the waterline to the edge of the side) at the stern than at the bow. No great problem, unless you lower the freeboard by putting additional strain on the stern. Stern anchoring does just that. A lowering of the freeboard at the stern makes the craft more susceptible to taking on water from the wake of a passing boat or unusually choppy water.

Overloading and improper loading are two other common habits of outdoorsmen which contribute to a sizable number of boating mishaps. Many sportsmen disregard their boats' "capacity plate." The capacity plate is put on a boat to advise the operator of the total weight that can be carried on board that particular craft during good boating conditions. However, equally as important as overloading is improper loading. Proper seating of the passengers and an even distribution of the gear will help assure a balanced load. Your craft when loaded should not lean to either side but have a slight lean from bow to stern when underway.

A good habit to get into is obtaining a weather forecast when starting out on the day's activities. Weather and water conditions are critical to the safety and stability of small boats. Weather information is always available in newspaper, radio, and television forecasts. Those sportsmen who have a portable transistor radio aboard will have the latest weather information. Watch for increasing afternoon winds and rain squalls . . . if you sense that a storm is brewing, head for the nearest shore. Remember, if caught in a storm put on that life jacket (PFD), stay low in the boat, and point the bow of the craft into the wind and waves. This will lessen the chance of broaching and a capsizing of the craft. Being weather-wise may prevent the venture from ending up in an unnecessary tragedy.



Anchoring from the stern, especially in a current, is definitely asking for trouble — a swamping is almost guaranteed! US Coast Guard photo.

If your favorite boating spot is located near a dam you're undoubtedly aware of the danger of going over a dam. But, are you aware that the water below the dam can be just as dangerous? Even if you survive the plunge, there is a force formed at the base of many dams which creates a back current that can pull a small boat and its occupants into the turbulence and capsize it. A dam does not have to be high to be dangerous — the force of the backwash can cause a death trap regardless of the height of the drop. Many dams on Pennsylvania rivers and streams are not marked and are almost impossible to see from upstream. Know the waters you plan to travel.

There are times that, regardless of how cautious or knowledgable you are, accidents will happen. If you do find yourself in the water unexpectedly, the first hazard you must face is that of panic. Many drownings could have been prevented if only the victim had stayed calm. In staying calm, air trapped in heavy clothing can keep you afloat at least long enough to grab a life jacket, buoyant cushion, or the capsized craft.

If the water is cold, you will be forced to make a more *critical choice.* The old and generally accepted rule of staying with your craft could be fatal — in cold water, survival time is drastically reduced. Immersion in cold water can quickly numb the extremities to the point of uselessness. Cold hands cannot fasten the straps of a life jacket, grasp a floating object, or hold onto an overturned boat. Within a brief period of time pain clouds rational thought. And, finally, hypothermia (exposure to cold) sets in, and without rescue, unconsciousness and death.

Preparation is essential when going afloat. Make sure your boat and equipment are in first class condition. Always tell someone *where you are going* and *when you expect to return.* When hunting or fishing it is recommended to form a party and take several boats along. Dress properly. Several layers of light clothing offer better protection than a single heavy layer. And, as mentioned before, *wear* a personal flotation device (PFD). It is your best insurance that the "big one that got away" isn't you. Enjoy the excitement of hunting and fishing in the colder months from a boat, but know the dangers and prepare yourself accordingly. Remember, a successful hunting or fishing trip is the result of good planning, good company, good hunting and fishing skills, and attention to safety, in the field, *and on the water.*

You've got to Believe!

by John Crowe

illustration: John Voytko *photo: J.F. Yoder*

What factor more than any other leads to success in fishing? Casting skill? The right bait or lure? Good tackle? Time of day or season? Location? Knowing the quarry? Or chance, which we usually call luck?

Each of these factors, plus many others, has its effect. The degree of effect varies. In fact, so complicated is the subject that the average fisherman rarely analyzes reasons for success or failure. He'll explain to himself or to anyone who asks that the "luck" was good or bad; a sort of summary explanation that isn't one at all.

Izaak Walton was no average fisherman, but even he used it. In Chapter Four of ***The Compleat Angler*** his fishing scholar says "***. . . I have put on patience, and followed you these two hours, and not seen a fish stir, neither at your minnow nor your worm.***"

The master replies, "***Well, Scholar, you must endure worse luck some time, or you will never make a good Angler.***"

Really, "luck" is no explanation at all. A fisherman can be lucky, a fact which contributes immeasurably to the fascination of the sport. However, luck is no more of an influence in fishing than it is in baseball, golf, bowling, tennis, or any other sport aside from pure gambling. Note: *pure* gambling, for even in most gambling we can improve our chances by analysis.

Does fishing deserve its reputation as a sport where success depends largely upon luck? Answer to that is an obvious "*no,*" and I apologize for being so obvious. the dominant factor determining success in fishing is *confidence!* And that same factor is the most influential in baseball or golf or bowling or any other sport, although in many sports great physical ability is thought to be the number one requirement for success. In fishing, happily, physical ability is of secondary importance.

Every thoughtful coach realizes the necessity of a good mental attitude in competitive sport, be it a team sport like football or an individual sport like golf. He attempts to develop in his players a valid confidence based upon their abilities. The confidence must be valid; otherwise it becomes a defeating overconfidence. The overconfident player collapses when the going gets tough; the underconfident one is likely to fall short of his capabilities. The really good player, the one with a valid confidence, knows what he can do and he does it, minor mishaps and reverses notwithstanding.

As Walton suggests, even the best of anglers will sometimes be disappointed.

Fishing is not in the common sense a competitive sport, despite all we see and hear about fishing contests. But it is in another and more gratifying sense a competition. On one side is the fisherman with all kinds of tackle and gear contributing to his focal angle, or hook . . . on the other is the fish with all its natural protective instincts and environmental adjustments. Aside from flagrantly artificial conditions, fishing provides an interesting contest. The angler who enters it with a valid and knowing approach will do much better than the one who hopes merely for good luck.

I doubt that Walton in his phrase "worse luck some time" meant the words literally. Perhaps he meant that the fish must sometimes be the winner. If fishing involved no uncertainty, it would be a dull sport, viewed from the extreme of either a hopeless pursuit or an effortless accomplishment. I don't know which is the duller: fishing that is obviously and totally hopeless or fishing that is altogether too easy.

Fishing becomes entrancing when its uncertainties balance, as in other sports. The baseball game, the horse race, the golf tournament, the tennis match — all become of increasing interest as their outcomes are uncertain. This is true for spectators and doubly true for participants; and in fishing one is almost always a participant.

Walton was a most assured fisherman, so much so that at least one reviewer calls him insufferably conceited. Whatever your reaction to what he wrote, you will likely agree that he was a good fisherman. Knowing that he was good certainly improved his performance. In Chapter Two of the ***Angler*** he points out to his scholar a big fish and offers 20 to 1 odds that he will catch it. Not surprisingly the scholar says "***. . . you seem to be so confident.***" And then in Chapter Five the scholar says "***. . . I have no fortune: sure, Master, yours is a better rod and better tackling.***" Whereupon the master replies, "***Nay, then, take mine, and I will fish with yours.***" The exchange made, right away he catches another trout.

As a fisherman today you may not find useful many of the specific details Walton suggests in ***The Compleat Angler.*** The minor aspects of fishing 300 years ago, in another country, have changed; the major principles have not changed. What Walton had going for him, making him one of the foremost fishermen of his day, you can have going for you. If you do not become one of the foremost fishermen of today, you can console yourself that now the competition is more severe.

To repeat: you must have confidence. That confidence must have a sound basis. As a sound basis, a hope to be lucky won't do. Yet you must always be hopeful, or optimistic. Pessimism and fishing success are incompatible. That has been said many times, but repeating it won't hurt. Just as the fear of the Lord is the beginning of wisdom, so is optimism



". . . you must always be hopeful, or optimistic. Pessimism and fishing success are incompatible."

the beginning of good fishing.

But only the beginning. Optimism of itself is not confidence; sound confidence is more complex, and in fishing is based upon many factors. At the beginning of this article, I mentioned a few of the important ones: casting skill, the right lure, good tackle, the right time and place, and knowledge of the quarry.

To each of these factors, and to many more, Walton paid meticulous attention. Consequently, he was a complete angler, knowing what to do, when to do it, and how to do it, fishing with confidence and, as a rule, success.

If I had to appraise the fisherman of today, I would say his most likely weakness is his not being a complete angler. He is inclined to base his performance, his fishing, upon his own strong points, meanwhile neglecting other aspects at least as important. For example, let me start with the first factor mentioned above: casting skill.

Casting skill is useful, no doubt, but only to a degree. The "graduate" of a fishing school may find his casting improved, but often he is disappointed in finding his catches unimproved. Years ago I had the privilege of spending a few days on a Pennsylvania trout stream with a party including one of the country's most distinguished fly casters. Accuracy, delicacy, distance — he was master of them all. But when it came to catching trout, he did no better than other members of the party.

He was good-natured about it, saying, "*. . . if I weren't so busy teaching people how to cast, maybe I'd have time to learn to catch trout.*"

Item two, the right lure — or fly. Probably this factor deludes more fishermen than any other; almost certainly it deludes more fly fishermen. If I have heard once, I have heard a thousand times, "*I couldn't find out what they wanted.*" In at least 900 of those cases, "they" weren't taking because of some reason other than the wrong fly: a noisy or clumsy approach or cast, fishermen crowding the water . . . who knows?

Bait fishermen too are often deluded. Years ago I used to hear that Pennsylvania's trout season might as well end by Decoration Day because



after that trout wouldn't take a worm or minnow. Come June, many old-time bait fishermen hung up their trout tackle. Come July, a lot of fly fishermen quit when pronounced and noticeable hatches of fly tapered off. Musky and pike fishermen said that August fishing was practically hopeless because in that month muskies and pike shed their teeth. And high late summer water temperatures made bass so reluctant to feed that fishing was practically useless except at night.

In the past half century a good many of the old ideas — fallacies, really — have disappeared. Pennsylvania's fishermen and Pennsylvania's fisheries managers have learned a good deal and more fishermen are enjoying their sport over longer seasons. However, as true today as it was 50 years ago, the knowing and confident fisherman has the most fun because he catches the most fish over the most time.

Item three: tackle. How important is it? Of the few factors leading to success discussed in this article, good tackle — rod, reel, line, et cetera — may be one of lesser importance. Except for one consideration: the confidence of the user. A good fisherman with barely adequate tackle will outfish by far an ordinary fisherman with the best . . . or should I say the *most expensive* tackle made.

Advertising, however, has a considerable effect upon the everyday fisherman. If by constant exposure to advertising the ordinary fisherman becomes persuaded that a new casting reel will improve his catch, the chances are that it will improve it. Not because the new is much better than the old, but because he *thinks* it much better. Having a wide variety of flies or an oversized baitbox full of lures may have a similar effect. I'm not advocating being overequipped, but to be underequipped has a damaging negative effect.

In this matter of tackle, you can be sure of one thing: if you are satisfied with what you have, it is good enough. If you aren't satisfied — say with something like a temperamental reel — replacement will surely improve your pleasure and probably your success.

Item four: time and place. Innumerable writers have discussed this subject, and all give the same advice: go when and where the fishing is good. It's good advice, and I can't improve upon it. However, I am going to say that most fishermen do not make enough effort to learn, definitely, when and where to fish with the maximum chance of success. Valid confidence comes from knowing, and knowing comes from learning. Each time you go to a stream or lake, you should learn something about it; the next time there, you will be a better fisherman. If you are one of the many who like to go to a new place each time out, you are neglecting your educational opportunities to become a better fisherman. A written log helps. Keeping it may be somewhat of a nuisance, but the trouble is well taken. Memory alone has a tendency to become inaccurate from year to year.

Item five (and last): knowledge of the quarry. If each time you go out and don't learn something, no matter how seemingly inconsequential, about the muskies or the bass or the crappies or whatever you are trying to catch, the only conclusion is that you don't care about becoming a complete, sound, and successful angler. And that's all right too; the stream or the lake is a pleasant place to be, fish or no fish. You can liken yourself to the happy golfer who said, *"I don't care if my ball never goes in a hole. I just like to walk around the course."*

Presumably, though, as a reader of the *Pennsylvania Angler* you are interested in catching fish, more fish. To do so, give some attention to the few items discussed above, and to others which will make you a more knowledgeable and successful angler. Eventually you will find yourself thinking that you can catch fish when you want to. When you get to that stage of the game, you are due for an occasional shock. Nevertheless, when you have reason to believe — and *do* believe — even the occasional shock will make fishing more fun.



Clarence Burd lifts carp that aren't tackle breakers on twenty-pound-test monofilament line to the top of the Juniata River bridge at Newport. He lands a larger carp by playing it toward the river bank, then walks off the bridge to the shore to lift it out of the water by hand. Fishing from a bridge is not your cup of tea? Don't knock it till you try it.

The Carp Fisherman

by David R. Thompson

photos by the author



He stands on the walkway halfway across the Juniata River bridge at Newport, leaning against the rail and intently staring straight down. Below him is a large fish, perhaps over thirty inches, feeding its way over the river bottom towards his bait. Moments later Clarence Burd sets his hook and braces for a battle that may last for more than an hour with what he considers to be one of Pennsylvania's most underrated fish: the carp.

Burd specializes in carp fishing. Some people in the Newport area know him as "the carp fisherman," and if his success continues he may soon need a computer to keep track of

the carp he catches!

In 1978, for example, Burd (known as "Burdie" to his friends) caught 202 carp, practically all while angling off the Juniata River bridge located near his Perry County home.

Although he concentrates on carp and does well at catching them, Burd doesn't claim to be an expert angler. He says he's received good instruction and commends the coaching of Newporter Percy Beatty, an accomplished musky fisherman and longtime riverman.

"I didn't start fishing until 1973 after experiencing a heart problem," the retired man says as traffic crosses the bridge just a giant step from his favorite fishing place. "I did real well catching bluegills at Little Buffalo Lake that year. Then I tried fishing here, at the bridge, and began catching carp."

That's also when Burd started having a lot of fun playing "tug-of-war" with battle-ready fish as big as thirty-five inches and 17¼ pounds.

Burd is careful not to overexert himself which is why he doesn't cast artificial lures for gamefish. Instead, he bait-fishes which requires less movement, is more relaxing, yet produces plenty of action. Dressed warmly with coveralls to break the wind, he starts sucker fishing with worms in the spring, as soon as the weather is decent, and usually catches some carp in the process.

In 1978, the year he landed 202 carp, Burd took the first three May 18. By August 21 he'd caught 31. And that's when the carp seemed to go crazy, biting as if a food shortage threatened! By September 26 his carp count had climbed to 128.

"I guess that's when I got serious about catching carp," he says, reviewing the fishing diary he started the year he began angling. "It says here that I caught fourteen carp August 25th and nineteen the next day. The water stayed cloudy most of the summer which made carp fishing better.

"People say carp are dumb, but actually they're very sensitive," Burd continues. "They're spooky when the water's clear. They seem to be able to see the line or a shiny hook in clear water, and if they do they often won't bite."

Because carp are alert, Burd uses a slip sinker so that when a fish picks up his bait, and swims with it, the line pulls through the sinker. "That way the carp doesn't feel the weight of the sinker," he explains.

Burd uses a medium-action spinning rod with an open-faced reel holding fifteen to twenty-pound-test line to which he ties a number four hook. He prefers a black hook if the water is clear.

"Corn is my favorite bait," Burd says. "This year I bought sweet corn from a farmer that was two weeks past picking. That way the kernels are larger. I cut them off close to the cob and keep them in plastic containers for carp fishing. I've used about fifty boxes since corn season," he says on a



Favorite carp bait is corn. Burd puts several kernels on a #4 hook, fishes it on the bottom.

mild November morning that feels almost like September at the Newport bridge.

Below the bridge, under the clear, low water, are the carp that Burd enjoys watching. "The most comical thing one will do is play in that old truck tire. It'll act just like a playing kitten," he says.

He decided to stop carp fishing for the year October 17 after catching 151. However the weather was so nice he continued fishing, finding that the carp bit best from about 3:00 p.m. to 4:00 p.m. As the days passed, and the fish kept hitting, he finally topped the 200 mark in early November.

Burd learned that a carp fisherman needn't worry about a crowd of anglers converging on a productive fishing spot. The reason is not many fishermen other than youngsters bother with carp. Since the carp isn't a gamefish and is often considered a "trash" fish, its reputation among some anglers is poor. They claim that carp, as bottom feeders, disrupt the nests of gamefish and eat their spawn.

But Burd disagrees that carp are trash fish and declares that it's untrue that they aren't fit to eat. He and his wife, Marian, eat carp frequently and agree that it is as good as if not better than bass and certain other more popular species.

None of the carp he catches are wasted or needlessly destroyed. The fish they don't eat are given to families that also enjoy eating them. And, sometimes a trapper needing bait will receive a carp.

Burd skins and fillets the big carp that are destined for his dining table. He is then careful to cut out the "red streak along the sides where the muddy taste is."

Marian soaks the fish in salt water for about two hours and bags and freezes it. Carp that are one to two pounds are rolled in corn meal and fried to a crisp brown in cooking oil. Her husband stresses that frying carp produces no unpleasant "fishy smell" in their house and that fried carp is delicious.

Marian also uses carp to make tasty fish cakes which she fries quickly until brown. To prepare a meal for the two of them, she grinds one pound of carp fillets and mixes the following ingredients with it: one-half teaspoon of Old Bay Seafood Seasoning, one teaspoon salt, one tablespoon mayonnaise, one tablespoon Worcestershire sauce, one tablespoon chopped parsley, one tablespoon baking powder, one beaten egg, two slices of bread broken into pieces and moistened with milk.

Fishing for carp, while not every angler's preference, has provided Clarence Burd with many hours of pleasure outdoors plus plenty of action. He feels fine on a diet that includes generous helpings of fish cakes and can't for the life of him understand why others don't capitalize on what to him is the king of fish — the carp.



Old bathtub, left, serves as holding tank, its aerated water keeps carp in good shape until someone needs a meal or two.

Filleting carp has become old hat for Clarence Burd and he has become adept at separating usable meat from the bones.





Frying carp leaves no "fishy" odors, says Marian Burd. Carp fillets are one of the Burds' favorite foods.



Burd points to red streak, left, which he always removes, saying he believes it gives carp flesh a poor taste.



"Reel" Duck, Anyone?

by R. Aldine Longenecker

Once upon a time . . . actually, it was a beautiful summer's evening, when I decided to finish the supper dishes quickly, and head for the pond to see if the bass were biting.

Being a female has never stopped me from a love for fishing. What better way to relax? Forget the worries of the day. "Sure, go ahead, but if you don't mind, I'll stay home," was a frequent reply from my husband. My fishing companion was our dachshund, Heidi. She was always ready and willing to go along anywhere and understood her job as "protector." Her bark always alerts me of someone approaching. It was also her job to investigate the area for anything from groundhogs to snakes. She once survived the attack of a rattler, so she knew the score. Anything that endangered her "fishing companion" was in jeopardy!

I grabbed the can of worms, my rod and tackle box — we were off!

In the mountain area near home was a secluded bass pond. Tonight it was especially beautiful with the light summer breeze playing in the evergreens, leaving small ripples on the water.

According to the sun, I'd have at least an hour or more of fishing. Several other fishermen had staked their claim to some shore area, but it didn't take us long to find just the right spot. Heidi was already busy, "clearing" the area.

Who could remember any problems of the world in such a serene setting?

I baited my hook, put on the bobber, and cast my line into a favorite spot. After several casts, with no success, I thought there might be one largemouth, just waiting for my lure.

Time passes quickly when you're having fun! Several lures and an hour later, I was still hunting a hungry one.

The evening had not been wasted, for I had saturated myself with the beauty of the setting sun. All was quiet except for the nestling sounds of the birds and the rippling of the water. The sway of the leaves and grass in the breeze added beauty, along with an occasional call of the wild ducks. They broke the scenic silence with their conversational "Quack" while busily preening their feathers and searching for food.

Time for one more attempt. I thought I'd take off the lure and give one big night crawler a try on just a plain hook. With one long cast, the line arched over the water, then splashed and started to sink.

One of the wild ducks, swimming nearby, turned tail up as she found a tasty morsel.

Wow! What a strike! It was worth the wait! Felt like at least a three pound . . . DUCK? Oh, no! I couldn't believe it! That duck thought she wanted my worm, but it was too late! When she decided not to indulge, she turned away, and in using her wings to swim, the hook penetrated the skin of her left wing. That's when pandemonium broke loose!

How do you *reel* in a *real* duck?

Before I had a chance to decide, the duck thought she knew how to get control of the situation. Between some very vigorous "Quacks" she dove into the water. I gave her more line, while she tried to shake loose. Within one minute, she managed to wrap herself up like a Christmas present. Then she decided to resort to biting the monofilament. This only resulted in more loud "Quacks" and a duck that was tongue-tied! She looked like she had been hit with 220 volts!

Meanwhile, back at the bank, Heidi thought that daffy duck was trying to attack her mistress. Barking furiously, she decided this would be no problem, and started swimming for the duck. I made one dive for her and came up with her collar! This was great! How do you reel in a drowning duck while holding a splashing, barking dachshund?

All the other fishermen were glaring at me. Heidi headed for shallow water, while I started to reel in some of the slack line.

"Can I help you?" With water dripping off my nose, I turned around to face another female fisherman. She must have taken pity on me. "Yes! Could you grab that duck when I reel it in close enough?"

"Won't it hurt me?"

"Lady, what could a duck do that's all tied up so tightly it can't move?" But on second thought, "Could you hold on to the collar of the dog?"

Heidi had "taken on" some water herself and was about "barked out." I managed to get the lady's hand and the dog's collar together simultaneously! Now the reeling was easy. In fact it was kind of "different," with the slowly sinking duck!

I managed to cut the line after I had the duck in my hands, and with one fast clip, the hook was out. I gave her a quick physical, checking for damage, then straightened out the feathers. When I was satisfied that all was well, I gave her a gentle toss onto the water. She quacked the whole way out to the middle of the pond where her three ducklings were waiting.

Darkness was approaching as Heidi followed me, very obediently, back to the car.

The pond was quiet again, except for a few mumbling fishermen and a Mama Duck. Her soft "Quack, Quack, Quack" could easily be heard. Translated, I'm certain this means, "Babies, don't ever go for the big worms! Be satisfied with the little bugs."

And we all lived happily ever after.


Nicholas A. Rosato

"Luck" has nothing to do with

Successful Bass Fishing

by Richard F. Williamson

photos: J.F. Yoder

Bass fishing has enjoyed a tremendous boom in the last decade, in Pennsylvania as in the other states and in Canada. Anglers with big bass boats and electronic gadgets are the glamor boys of the sport, but they are in a minority. Knowledge of bass behavior, habitat and feeding habits, the selection of proper baits and lures, and the mastery of a variey of fishing methods are the keys to success. Bass anglers with problems are those who credit "good luck" for their good catches and blame "bad luck" for their failures. Like those who fish for northern pike, pickerel and walleyes, their success or failure is under their own control.

Both largemouth and smallmouth bass are most comfortable and feed best in water of about 70 degrees. In early season, this temperature will be found in comparatively shallow water, but as the weeks pass and the upper layer of water is warmed by the sun, bass will go deeper to find their comfort zone. Actually, bass spend most of the time in middle depths or close to the bottom. There they find not only comfortable water temperature but also protection from bright light and the security of water depth.

Largemouth bass are basically lake or pond fish, but also do well in large rivers and in deep pools with slow current in smaller streams. They like weeds, lily pads, stumps, sunken logs and mucky bottoms. Smallmouth bass are stream fish, all the way from creeks (where they may share the water with trout) to big rivers, and most of the time they live in currents of moderate speed. They prowl rocky shallows and even riffles, and they also are partial to stream edges and to pools that have rocks scattered over the bottom. Smallmouths also inhabit lakes, in areas that have gravel beds and rock piles amid vegetation and muddy or sandy bottom.

All bass like water areas where they find cover in the form of weeds, stumps, fallen trees, overhanging tree branches, undercut banks and other obstructions.

The largemouth is not a fussy eater. It will tackle almost anything not bigger than itself, and it is an enthusiastic surface feeder. The smallmouth is a picky, rather dainty eater, almost as selective as a trout. It also will feed on the surface, but not as willingly as the largemouth.

Both species feed most vigorously during the low light periods of the day: early morning, late afternoon, early evening and even at night. They also feed with greater enthusiasm when cloudy weather reduces the light intensity. As day advances and light decreases, bass feed higher and higher in the water until by evening and into the night they prowl the shallows and take surface lures well.

In broad terms, the same tackle can be used for both largemouths and smallmouths, but when the largemouth is the target the tackle must be stout enough to control a hooked fish in its lair of weeds, stumps and sticks. The same tackle used in trout fishing serves the smallmouth angler well, for this member of the bass family generally averages somewhat smaller than the largemouth and usually is found in water that is less cluttered.

Casting and spinning rods are the favorites of bass anglers because of the size and weight of the lures that are most often used. But a heavy bass fly rod can handle largemouths, and delicate fishing with fine tackle on light fly rods can be necessary to take smallmouths, especially when the water is low and clear in midsummer.

Now let us consider the matter of baits and lures.

When I was a young fellow, two state fish wardens (as they were known then), Myron Shoemaker and Max Noll, opened my eyes. I met both wardens (now deceased) while fishing for bass in Wyalusing Creek, in Bradford County, using stone catfish and hellgrammites and, at the time of the meetings, not being very successful.

Mr. Noll introduced me to fishing for bass with a fly and spinner combination; Mr. Shoemaker sold me on the sport of surface fishing with deer hair bass bugs.

I already knew that largemouth bass are addicted to minnows, frogs and other baits of considerable size and bulk, and that smallmouths feed consistently on nymphs of aquatic insects, grasshoppers, small minnows and frogs, hellgrammites, stone catfish and lively worms ranging from the garden variety to monster night crawlers. What the wardens taught me was that imitations of this natural forage also account for good bass. They also made the point that live baits should be like those the bass is accustomed to seeing in its home waters.

And they suggested a rule I have followed ever since: begin with artificial lures, which are less messy and more fun to use, but turn to live baits if the bass refuse the imitations. In other words, offer the bass what they want.

Artificial lures for bass are available in patterns that are attractive to both largemouths and smallmouths. As a general rule, the bigger lures are for largemouths, and smaller lures — even trout flies as small as size 12 — are for smallmouths.

Crank baits, which usually are fat, stubby plugs, are the latest models. They occasionally take bass when twitched on the surface, but they are basically designed for underwater use, and they are the most effective when



"Largemouth are basically lake or pond fish . . . like weeds, lily pads, stumps, sunken logs and mucky bottoms."

they are retrieved at a smart speed to bring out the wobble built into them. Some will float until the retrieve is begun, then the depth at which they travel is controlled by the speed of the retrieve; others sink immediately.

Plastic worms are rated as the most deadly bass lures ever developed and are on the market in a bewildering array of colors, shapes, lengths and scents. Bass experts do not agree on any one worm as the best; they have a big variety in their tackle boxes. But they do agree on the point that the length of the worm is very important. Six inches is the most favored length, although worms are available in the range of four inches to more than a foot. The shorter worms are best for clear, uncluttered water. The monsters are designed to attract bass in the big lakes and impoundments that feed on such tidbits as small watersnakes.

Spoons, some a solid silver or brass color, and some carrying painted designs, are also effective, especially when sweetened with a bit of plastic worm or pork strip.

Bass plugs are not all alike, of course. Some float, then dive on the retrieve and pop back to the surface when the retrieve is stopped. Some travel at medium depths, others very deep, and still others literally bump bottom. There are long, slender lures that look like minnows, lures with spinners at front or rear or both that churn the water, lures with bits of lead inside their bodies to make them rattle, and sonic lures that attract bass by their vibrations. Some are exclusively surface lures; others are underwater models.

Spinnerbaits, which usually have lead bodies, with one or two spinner blades on a shaft angled above the body, are growing in popularity. Some of the latest models have plastic grubs or plastic minnows as bodies. Others have bodies dressed with hair, feathers or rubber skirts in a variety of colors. The number of blades on the spinner shaft is important. Those with two blades are called tandem spins and are favored for use in relatively shallow water. Those with one blade, classed as single spins, work deeper in the water. These lures have an important advantage. Because of their design, they are largely snagproof and can be fished in brushy and weedy water.

All of the lures listed thus far, it should be noted, are intended for use with spinning and casting tackle.

Fly rod fishing for bass is an art in itself. It requires a rod eight and one-half or nine feet long, with enough backbone to cast wind-resistant lures. The line must match the rod. A level line will do the job, but a forward tapered line is better, giving the angler a longer casting range.

Fly and spinner combinations, streamers and bucktails are good bass fly rod lures. Bright colors such as red, white, yellow and orange get the most attention.

But the real thrill of fly rod bass fishing comes with the use of surface lures. What do you want the surface bass bug to do?

Gurgle or pop? Use a bug with a dished-out face. Make only a slight surface disturbance? Use a bug with a flat face. Imitate a minnow? Use a wounded minnow imitation with a round, slender body and rounded nose that will make a gentle disturbance on or near the surface. Look like a big, helpless bug? Use a deer hair model or a bug with a plastic or cork body that has plenty of feathers or hair as decoration. Look like a frog? Use a bug with two legs angled out from the rear.

And add to this list standard wet flies, but in larger sizes. Some patterns worth trying are Yellow Sally, White Miller, Red Ibis, Parmachene Belle and Montreal. Or, use large dry flies of the bivisible and spider patterns.

Whatever lure you use, cast most

often to areas around stumps, ledges of rocks, patches of weeds, boulders or piles of rocks on the bottom or close against undercut banks in streams and lakes and close to rocky points and walls on lake shores.

Don't just cast out a bait and let it lie in the water or cast a lure once in a likely looking spot, then move to another. Bass do not feed all of the time, any more than other species of fish do, but they can be teased, irritated or challenged into a strike even when they are not hungry. The way to arouse them is to cast a lure or drop a bait repeatedly into a chosen spot.

The less than complete angler casts a spoon, then cranks it back at a steady pace that is unattractive to bass most of the time. The good bass angler has learned to make a spoon do some fancy tricks, darting and dashing through the water and occasionally stopping and fluttering down to the bottom, changing depth and speed of retrieve from time to time on every cast. He tries another method that has accounted for some monster bass. He fishes with a heavy spoon that he simply moves straight up and down in the water, from top to bottom and back up. In the South this system is called doodle-socking.

The successful bass angler has learned that there is more than one way to fish a plastic worm. Bumping this lure over the bottom is the usual method, but a floating worm can be very effective if it is retrieved on the surface with slow, gentle action of the rod. It swims through vegetation, such as weed patches and lily pads, that would foul other lures. The wise fisherman insists that the worm be soft and flexible, simply because it has better action. He tries worms with a variety of shapes, lengths, colors and scents.

Spinnerbaits are designed for action down in the water, but they can be used with a variety of retrieves. From time to time they can be made to bump along the bottom or they can be fished literally on top, with their spinners churning the water surface.

There are many patterns and sizes of jigs to be tried, and the effectiveness of any of them can be improved by "sweetening" with a night crawler, a bit of pork strip, or even a small minnow.

Bubble floats permit the spin fisherman to use wet flies, streamers and bass bugs.

The experienced bass angler pays most attention to shady spots, but he also makes frequent casts into open, even sunny, water, knowing that bass roam there some of the time. He prefers to use surface lures when the water is smooth or only slightly ruffled by a gentle greeze, but he knows that a surface lure worked so that it produces considerable commotion can be effective on rather choppy water.

With sub-surface lures of any kind, the good bass fisherman fishes at various depths until he discovers the level at which the bass are feeding or just moving around, open to annoyance. And when bass seem to have lockjaw, he sends his lures as deep as possible on the theory that the bass may be hungry but that they insist on finding their meals on the very bottom of lake, pond or stream.

And, to make sure his luck is good, he tries every trick he hears or reads about. His is decidedly not a one-track fishing mentality.

At the end of the day, the bass angler who has acquired a basic knowledge of the fish he seeks, who has the correct tackle and knows how to use it, and who has mastered a variety of fishing methods will listen politely to the chap who moans about his bad luck — and won't brag about his own good luck. But if the moaning angler is a good friend, he may gently point out that luck really had nothing to do with the day's results, good or bad.

"Smallmouth are stream fish . . . live in currents of moderate speed . . . prowl rocky shallows and even riffles."



Paul Swanson only caught about 2,000 fish last year. That was an "off year" for Paul. The year before he caught more than 3,000. As a matter of fact, during the previous seven seasons he hooked at least 2,500 fish annually, and maybe even as many as 5,000 one year.

Up until seven years ago Paul was lucky if he caught 100 fish a season. Now it's not unusual for him to catch that many in just a couple outings.

There's no "black magic" involved in the sudden spurt in numbers and Swanson says anyone can do the same thing. Swanson is supervisor of the Pennsylvania Fish Commission's Northcentral Regional Law Enforcement Office in Lock Haven. The 11-county region includes some of the state's top trout streams, such as Slate Run and the Loyalsock. But you'll seldom see Swanson wading those waters; panfishing is his dish.

Swanson, in his mid-30s, is the youngest of the Fish Commission's regional supervisors, and like one of the television commercials says, "*It pays to listen when he talks.*"

"I used to be a trout fisherman and maybe catch 100 a year . . . maybe less. I enjoyed trout fishing just as much as panfishing. I just didn't catch as many."

Paul's trout fishing ended when he went to "school" while a Waterways Patrolman in Erie in 1970–71. The "classroom" was on the ice in Presque Isle Bay; the "teachers" were the thousands of anglers after perch and other panfish. They taught Paul a school of panfish could provide a lot of fun and food. "I saw all those people catching all those fish. I started eating them and they were really delicious." Since that conversion Swanson catches "very few" gamefish and keeps none.

Swanson still has a special fondness for fishing Lake Erie — where there's no daily limit on panfish — and usually goes back three times a year, including once in the winter to join other anglers out on the ice. During a weekend outing to Erie (he also goes back in the spring and fall) it's not unusual for Swanson's catch to number in the hundreds. On one weekend trip with a buddy the two caught 400 perch, with Swanson accounting for 300.

While these trips help run up the number of panfish Paul hooks, he also catches a thousand or so in the waters right around home during his "50 to 80" outings a year.

Pulling that many panfish out of a lake is one way an angler can help improve his chances of catching bigger fish, Swanson says. A female bluegill, which can deposit 38,000 eggs, will spawn two or three times a summer, compared to the trout, which spawns once a year. A half-pound crappie can produce up to 50,000 eggs and a female perch up to 75,000. That "population explosion" adds up to a lot of little fish competing for a limited amount of food. This produces an overabundance of stunted fish. The result is poor fishing.

Four years ago bluegills in Rose Valley Lake in Lycoming County in his district were six inches "at the most."

"A six-inch bluegill is not that desirable," he says.

Now they average eight to 8½ inches. He attributes the growth to stepped-up panfishing in the lake, such as the "thousands" caught during a family fishing clinic. "They would have grown some, maybe to seven inches," he says. "But not to eight or 8½. So if you thin out the fish, which is what I do, the remaining fish will be larger because there's more food available for them."

Because panfish are prolific spawners, he said in states such as Pennsylvania, which has a daily limit of 50 on its inland waters, there is little likelihood anglers will "fish out" a lake. "There isn't any lake that I've seen overfished," Swanson says, stressing he is talking only about panfishing.

The thousands of bluegills, perch and crappies Paul catches every year won't set a record for size, but they fill the frying pan, and Swanson feels part of the fun of fishing should be in the eating. "Eating the fish, that's the enjoyment," he says. And, he notes, his family "enjoys" fish for dinner once or twice a week and he hasn't bought a fish in years.

When Swanson talks about the thousands of fish he catches every year "people can hardly believe it. But it's entirely possible for anyone to catch that many. Maybe not the first year, but once they learn the technique and about each species of fish, it's entirely possible."

Knowing when and where to fish for different species is one key to being a successful angler, he stresses. The yellow perch, one of the most popular panfishes, is an example. Perch usually are found deep when the summer sun warms the water. But Paul spin-fishes for perch in early spring, shortly after ice-out, when they begin to move into shallow water. This usually is about April 1 in the northern tier counties of Pennsylvania. When the water temperature starts inching between 45 and 50 degrees perch are in their spawning areas and usually can be found in water about three feet deep. Because perch have other things on their minds this time of year, weather usually doesn't affect the fishing.

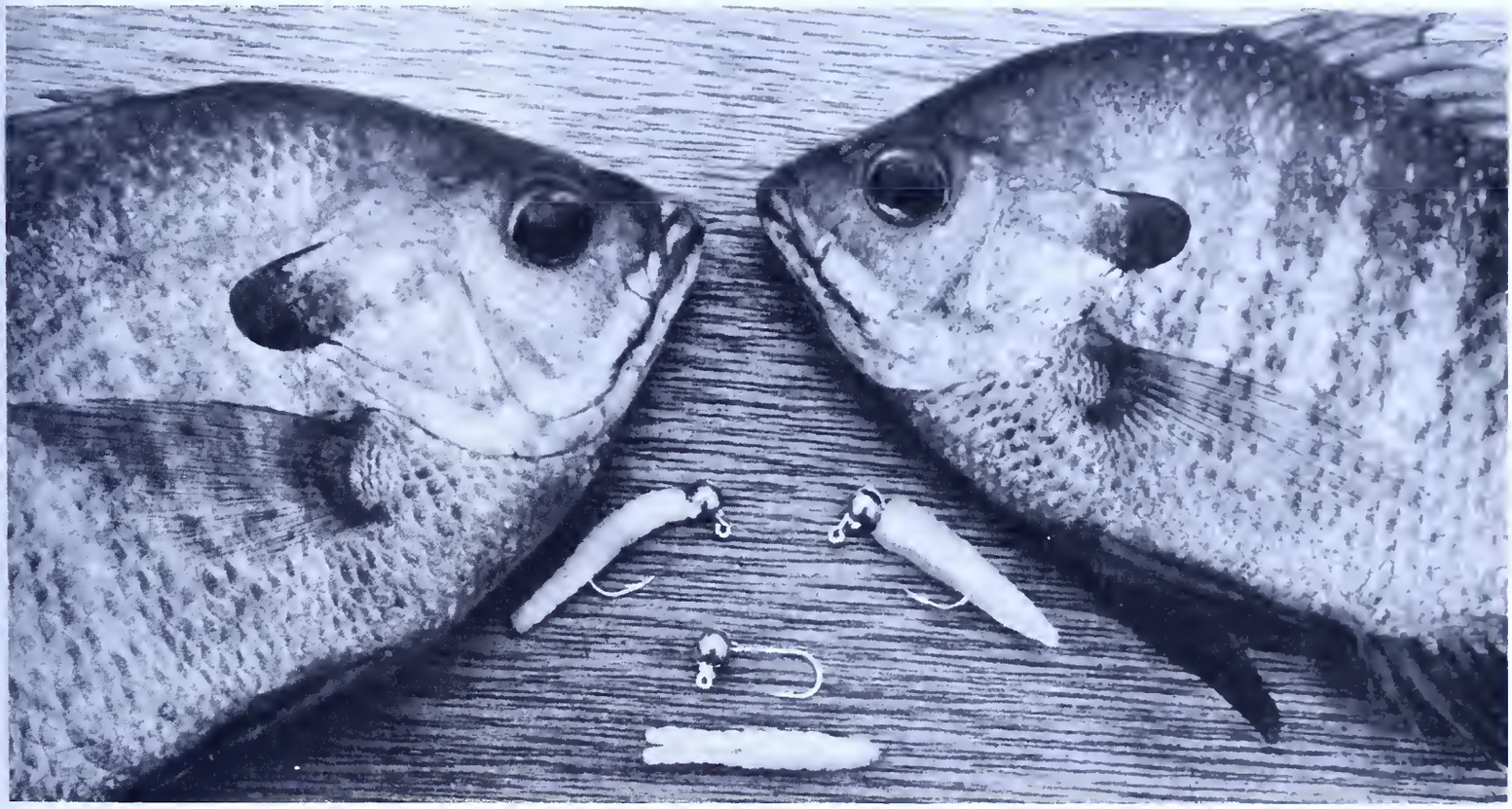
"In the spring, perch hit pretty consistently throughout the day. A cloudy day may have some advantages over a sunny day, but you can go out on a sunny day, a windy day or a cloudy day and catch fish," Paul says.

In Paul's part of the state perch fishing usually lasts until about mid-April. Then, toward the end of April, as the water warms some more, black crappies begin their spawning runs into shallow areas from three to six feet deep where there are brush piles, weed beds or other dense cover. Water temperature is "critical" when going after early season crappies. A couple of cold days accompanied by a dip in the thermometer can cool off fishing fast. The best fishing usually follows a warm weather pattern consisting of two or three days of sunshine. After the water temperature hits the mid-50s crappie fishing picks up, and in northern Pennsylvania remains consistent into early June after peaking about Memorial Day. Crappies seem to bite all day long, although Paul finds the best fishing usually occurs the last couple hours of daylight.

The same sun which feels so good on an angler's back also is warming the lake, sending crappies to deeper water. While the crappies are gone they're not really missed. On hand to take their places are bluegills, which begin moving into the shallows when the water temperature approaches 60 degrees. Bluegills prefer quiet, weedy waters where they can hide and feed. In lakes with a lot of weeds the best bluegill fishing is in late May or early June, before the growth gets too thick. Early in the season bluegills seem to bite best from noon on, as the afternoon sun warms the water. As the days get longer the bluegills get more active

Panfishing . . . it's his dish!

by Bill Pennewill
photos by the author



Bluegills find yellow plastic split-tail beatles irresistible, most effective when slipped onto weighted jig hooks.

and can be caught all summer. As with crappies, the two hours just before dark are most productive.

When conditions fall into place to create a perfect "bluegill" day there's no limit to the number an angler can catch.

"At a family fishing clinic at Rose Valley Lake I saw well over 1,000 bluegills caught in one day," Swanson says. It was the first week in June and "the water temperature was ideal for bluegills to be in shallow, not far from shore; they were beginning their spawning activity; there was no weed growth in the lake at that point; and the fish were very aggressive."

Paul fishes for bluegills all summer, but as the days get cooler he keeps an eye on algae in the lake. During summer the algae blooms and gets quite thick. When first frost covers the ground the algae begins to die. Then Paul knows perch fishing will pick up again. This time of year the perch is an "early riser" and the best time to catch them is between 7 and 10 a.m., or until the sun comes out. Perch, which aren't too active in the bright, fall sunlight, also bite better on a cloudy day or if a ground fog covers the lake.

"Tremendous" fall perch fishing lasts about six weeks. Then it's time for Paul to put away his spinning rod and think about hunting turkey and deer in the surrounding hills. But he still keeps an eye on the lakes, waiting for the ice to get thick enough to go fishing again.

Knowing when and where to fish is only half the battle. An angler also must know how. Paul's technique is simple, his equipment basic, the lure important. That, combined with an eye for details, is a "catching combination" a lot of panfish find irresistible.

The only "bait" Paul uses is a plastic split-tail beetle "one and one-eighth inches long, to be exact." The beetle comes in a variety of colors, "but you can see what my favorite is," he says, opening his tackle box. All are yellow.

The yellow split-tail beetle is another "secret" Paul discovered while a Waterways Patrolman in Erie, and one he considers "essential" to his panfishing success. He has been unable to locate the beetles in tackle shops in his district and sometimes makes his own and other times drives half-way across Pennsylvania to replenish his supply.

Swanson threads the beetle onto a number 575 Aberdeen-style gold jig hook to which he previously molded 1/32nd of an ounce of lead to the shank, right behind the eye. A split shot pinched onto the shank also can be used. Paul buys his hooks by the thousands because he loses a lot of jigs fishing around cover, and selection of the 575 isn't a matter of guesswork. He says the 575 gold hook holds a sharper point longer and doesn't bend and break as easily as bronze or cadmium hooks.

Paul usually starts off in the spring using a size 8 hook because the water is colder and fish are "hitting easier." As the water warms he'll switch to a size 6 for additional strength. In the fall he returns to the smaller size 8 hook. He uses the same length split-tail beetle on both size jig hooks.

Most people use the first bobber they get their hands on when they



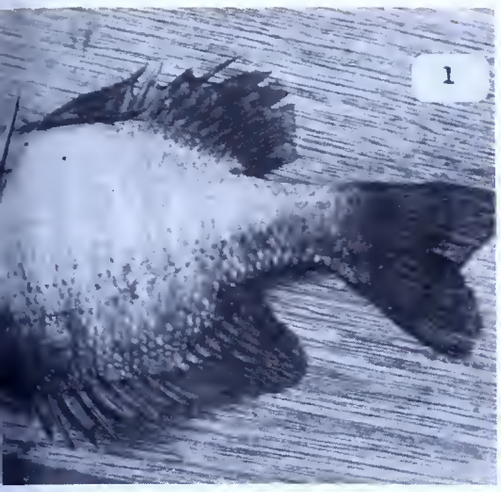
Two fillets taken from a bluegill show how cleanly the meat can be cut from the fish. Follow "Practice Makes Perfect," next page.

reach into their tackle boxes. Not Paul. He has found the one-inch bobber is best so an angler can set the hook as soon as he feels a fish hit. The only exception is when the water is mirror-smooth. Then he clips on a ¾-inch bobber. "With a bigger bobber you miss a lot of fish because there is too much drag. With a smaller bobber you can't see if you have a hit when the water's rough," he explains. Paul is continually moving the bobber up and down on his line as he adjusts the depth of the jig to locate fish.

Don't think that because Paul uses a bobber he just sits and waits for fish to swim his way. If he isn't catching fish one place he moves to another, and all the while he's continually casting and retrieving "to cover more water." Then, where one is caught, there's bound to be more, and usually it's no problem to hook a mess of fish in an hour or so.

How Paul retrieves depends on the species he's after. For bluegills he uses a stop-and-go system. With the tip of his seven-foot rod pointing toward the bobber and all slack out of the line, he'll reel in about a foot, then stop to give the jig time to settle bottomward. Bluegills usually hit when the jig is stopped. They're quick to spit out anything they don't like and the instant Paul sees any unusual action on the bobber he snaps his rod up vertically to set the hook. Perch, like bluegills, have a "really tough mouth, and you can sock it to them." Crappies, however, are noted for paper-thin mouths and a "softer" touch is needed when setting the hook. "You still jerk the rod to the vertical, but not as crisp. Just set the hook firmly. And you can't reel crappies in as quickly, either, or you can tear the jig out of their mouths." Crappies and perch hit the jig when it's moving, and Paul uses a retrieve so slow and steady it seems as though he's hardly cranking the handle of his reel. Crappies, though, are "unpredictable" and if Paul doesn't start catching them on a steady retrieve he'll switch to the stop-and-go method.

But there's nothing unpredictable about why perch are Paul's favorite fish. "I like them for their ease of filleting and their edibility . . . they're very good eating." With a recommendation like that it shouldn't take long for perch to become the favorite of a lot more fishermen.

















Practice Makes Perfect

Filleting a fish is easier than it looks. All it takes is practice, a sharp, thin-bladed knife, and a board or other flat surface to work on. And, panfish are perfect to practice on because they're plentiful and it's easier to catch more of them. Practicing on fish once considered too bony to bother with gives an angler an opportunity to learn how to fillet while providing the main course for a mighty good bone-free meal. Eating the catch helps add to the enjoyment of panfishing, according to Paul Swanson. He should know — he catches panfish by the thousands. Swanson can fillet a fish in little more than a minute. Here's how he does it.

Swanson starts by making a bone-deep cut on the side of the fish, behind the fin (Photo 1), then carefully slices along the top, with the tip of the knife following the bone structure and penetrating no deeper than the rib cage (Photos 2 and 3) until he passes the dorsal fin.

Then (Photo 4), he slides the knife out through the bottom of the fish and slices the rear portion away from the bone.

After peeling the side away from the rib cage (Photos 5 and 6) he puts it aside to skin later. He then repeats the procedure on the other side of the fish.

To skin he grips the narrow, rear part of the fillet with a pair of hemostats and slices off the meat (Photos 7 and 8).

To prepare fillets, salt and pepper to taste and dip into eggs beaten with cold water, then coat with cornflake crumbs. Deep-fry in fat for two minutes.

"Then you have some good eating," Swanson says.

At Raystown Lake's permanent display tank —

"What you sees is what you gets!"

by Wes Bower
photos by the author

Raystown Lake, the 8,500-acre Corps of Engineer lake situated in Southcentral Pennsylvania, is virtually an untapped source of quality fishing. The big ones are there, and in good numbers too! Fishing in this vast impoundment often results in a diversified catch. A knowledgeable angler may end up with a creel of catfish, perch, rock bass, bluegills, crappies, and a variety of other warmwater species. Largemouth and smallmouth bass, walleyes, the ferocious musky, and the recent sensation, striped bass, are also found in the largest lake which lies wholly within the Pennsylvania borders. As an extra bonus, coldwater enthusiasts can find brown, rainbow and lake trout.

The Raystown Bassmaster's had been searching for a project that would benefit fishing tournaments held at the lake as well as a community or civic project that would enhance the image of their officially adopted body of water. When a permanent fish exhibit tank was suggested there was a unanimous vote to go "full speed ahead" with this popular project.

Another important consideration was that in 1978 the first Raystown "Fisherama" was conducted. It proved to be so successful that it is now planned as an annual event. It was a fishing contest conducted by Anchorage Enterprises Inc., open to everyone, and there was no charge for admission. Anglers of all ages and with varying fishing skills fished for almost all species found within the lake. Prizes were small, but interest was intense, and winners came in all sizes and shapes. It was felt that a permanent tank used for this program would further enhance the popularity of Lake Raystown.

Certainly no one is more aware of this than the Raystown Bassmasters, a local club of 20 sportsmen, which are affiliated with the Pennsylvania Chapter of the B.A.S.S. Association. They're rightfully proud of their chosen fishing area and they wanted to share some of their pride with the angling fraternity as well as the general public.

Raystown visitors are well aware that during recent years there has been an increase in the number of bass tournaments on the lake. Most recently it has been the home of the "Mr. Bass" state competition and the "Cold Turkey" tournament, both quite prominent in size as well as prestige. Other bass tournaments and many smaller club "fun" tournaments are held on a regularly scheduled basis. Most of these tournaments involved erecting a temporary makeshift tank to hold the day's catch during weigh-ins.

Taking their idea to the Corp of Engineers and the Pennsylvania Fish Commission, as well as Anchorage Enterprise Inc., on whose leased area they wanted to erect the permanent tank, they received enthusiastic approval to carry out their project. As an added bonus, Raystown Bassmasters also agreed to maintain the structure and make routine checks of the contained fish.

Both the Fish Commission and the Corp of Engineers pointed out that some added bonus to the project would be practical in that it would give bass caught in tournaments a chance to readjust before placing them back into their natural habitat. It would also afford novice anglers and youngsters an opportunity to get practical experience in identification of different species of fish.

The 20 local anglers who make up the club then went to work. Coming from a vairety of backgrounds which includes, carpentry, coal mining, an insurance agent, farming, auto body mechanic, plant executive, college student, and other diversified job areas, they searched their own ranks for know-how and technical knowledge. With several unanswered questions, they went to professional outside sources. But when it came to the manual labor, the club members "did their own thing." However, it was generally agreed that Ron Grove and Bob Miller were the backbone of the work force, as well as being on the committee which spearheaded the project. With a donation of $500 from Anchorage Enterprise, Inc. to get the project started, and a fiberglass tank donated by Owens Corning Fiberglass, a local concern, the Raystown Bassmasters began some fund raising projects to come up with another necessary $1,350 to purchase material for the exhibit tank. A conservative 300 manhours of labor went into the project, but when it was finished the Raystown Bassmasters could look on their project with pride. Conservative estimates from outside sources indicate that construction of this type by a professional firm would cost in excess of $5,000. The end result was a 12-foot diameter tank, three feet high. The outside dimensions were 18 feet square and the pagoda type roof and heavy support poles blended into the general architectural blend of the Corp of Engineer's structures on the project. A quality recirculation water system was also incorporated into the fish tank.

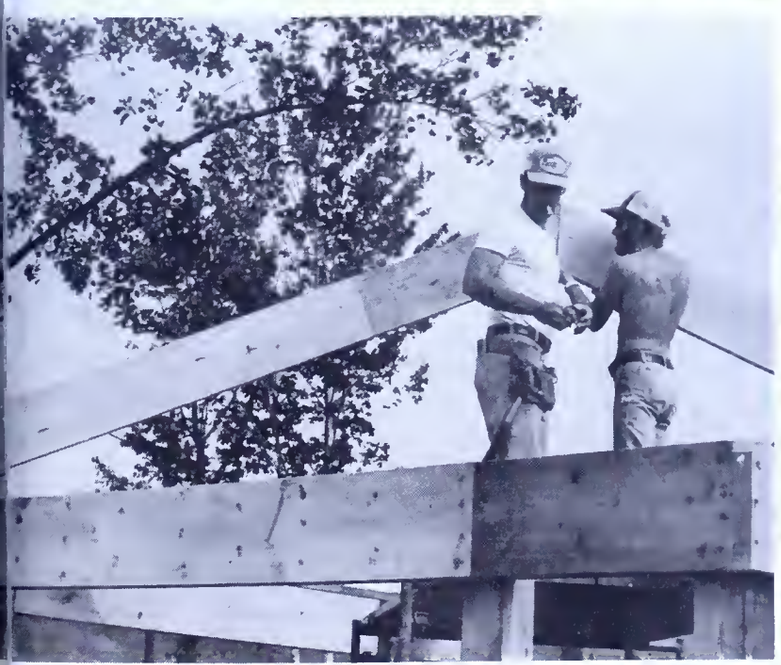
Ron Grove and Bob Miller, when asked if they felt the permanent exhibit tank was worth the cost and effort put forth by their club didn't need to search for an answer. Pointing to an excited group of youngsters and adults peering into the tank at the different species of fish and listening to the entertaining comments, their reply was simply, "What you see is what the project was all about and it was worth every cent and every minute spent!"







To put the show on the road — rather, the tank on the ground and under roof, took a lot of doing. Donations included the fiberglass tank shown above left, hard cash, and probably more man-hours of carpentry, roofing, and other skills than anyone was able to record. The end result was a permanent exhibit which blended with the Raystown Lake landscape and one which serves a far more educational and informational purpose than might have been expected.





FLY TYING

by Chauncy K. Lively

The beautiful insects of the order Odonata are common around bass water everywhere, and, perhaps to a lesser degree, in evidence along trout streams. Represented in this order are the fast-flying dragonflies and the smaller, more delicate damselflies. Apart from their differences in size and speed of flight, the two insects may be distinguished by the positions of their wings at rest. Unlike dragonflies, which hold their wings horizontally outstretched, damselflies in repose almost always carry their wings together, over their backs and on edge. Exceptions are the Spread-Wing damselflies found around swamps and ponds, which rest with their wings in the posture of dragonflies.

Dragonflies are often called "skimmers" because of their characteristic low flight over water, occasionally touching the surface. They are also referred to as "darners" or "flying darning needles," names which allude to several ancient superstitions, one of which insists that they sew up the lips of lying boys. Dragonflies feed voraciously on other insects, which they capture in flight, and they are particularly effective in controlling mosquito populations. They entrap their prey in a cage formed by positioning their hairy legs in the shape of a basket or scoop.

Damselflies are less aggressive than their showy cousins and although they occasionally seize other flying insects they generally prefer to hunt for food on the stalks or leaves of aquatic plants. Their flight is rather slow and erratic and they often hover in place above the water.

Odonata is perhaps the oldest surviving order of flying insects, having existed on earth for 300 million years. What is most remarkable about this long tenure is the fact that their flight mechanisms have remained virtually unchanged. However, their average size has diminished over the aeons; prior to the age of the dinosaur there were dragonflies with a wingspan of thirty-six inches!

I first began to pay attention to dragonflies quite a few years ago at Canadohta Lake, when I watched a big largemouth bass try to pick a darner off a lily pad. Then, in the penitentiary stretch of Spring Creek, I saw an enormous brown trout fling himself full-length out of the water to intercept a hovering damselfly. Spurred by these two experiences, the Skimmer was developed as a general pattern to represent both dragonflies and damselflies, with appropriate adjustment for size and coloration.

The Skimmer is an all-deerhair dry fly/bass bug with a bound, detached body and spent wings. It may be argued that the naturals are four-winged insects; however, the elimination of hind wings in the pattern has not diminished its effectiveness and it has greatly simplified the dressing. For bass I tie the Skimmer as a dragonfly in sizes #6 and #8; for trout, as a damselfly on #10 and #12 hooks. The larger sizes are dependent upon the availability of long hair for the body. Deer body hair is of the correct texture but is generally too short. However, the hair near the base of a bucktail is generally long and coarse, approximating body hair in texture, and ideal for this purpose.

The Snubber, shown in Fig. 1, is a handy little homemade gadget which acts as a third hand in the manipulation of deer hair. It is made by doubling a six-inch strand of heavy monofilament and threading the ends through a short plastic tube or sleeve. The ends are knotted to prevent the sleeve from sliding off. In use, the material to be controlled is snared by the monofil noose, which is tightened by sliding the sleeve toward the material. In dressing the Brown Skimmer the Snubber is useful in holding wayward hair butts out of the way while the wings are tied in and formed. There are other uses, too, which we'll cover in a later column.

Although the Brown Skimmer represents a common dragonfly, the dressing is applicable to other members of Odonata by altering only the pattern's size and body coloration, which may be blue, green, red or black, depending upon species. The prominent black head of trimmed hair should be incorporated in all pattern variations. As always, observation of the species frequenting your fishing waters is your best guide.

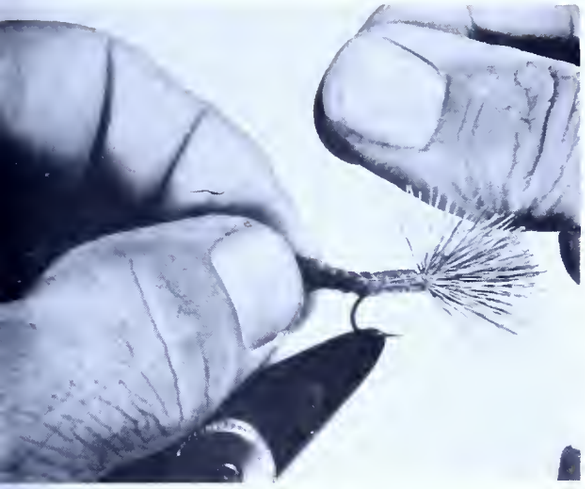
Dressing the Brown Skimmer:



Left — To assist in the handling of deer hair, make two Snubbers described in text.

Right — Clamp a size #8 regular shank hook in vise and lash brown nymph thread to center of shank. Wind thread in spaced turns to bend and then back to tie-in point. Half-hitch. From a natural bucktail cut a bunch of brown hair (when flattened near the roots, about 3/8" wide) from the long, coarse hair near the base of the tail. Comb or brush out fuzz and short hairs; then hold hair over hook with butts extending well beyond eye and press hair downward until shank is contained within the bundle. Make two turns of thread around hair and slowly draw tight. Half-hitch.





Left — Stroke hair toward tips to remove any slack. Hold hair in a bundle with left hand and with right, make firm, spaced turns of thread, working right to left. In wrapping it is important to maintain a constant tension. When you have wrapped past the bend hold each successive turn in place with the left forefinger as you pass the thread under the body.



Right — When you have wrapped a length approximating the overall length of the hook, make two additional turns over the last; then reverse directions, wrapping over previous winds in a cross pattern. Half-hitch at tie-in point.



Left — With bodkin, separate hair butts into two bunches, one above and one below shank. Snare upper bundle with a Snubber and pull back out of the way, above body. Then similarly apply second Snubber to bundle underneath body. A coil material clip will conveniently anchor ends of Snubbers. Move thread forward of separated hair.



Right — For wings, cut a medium-sized bunch of natural deer body hair and make tips even by inserting bunch in hair tamper, tips down, and tapping. Tie in wing hair with several firm turns and half-hitch. Effective wing length should be equal to length of bound body. Trim excess hair butts, as shown.



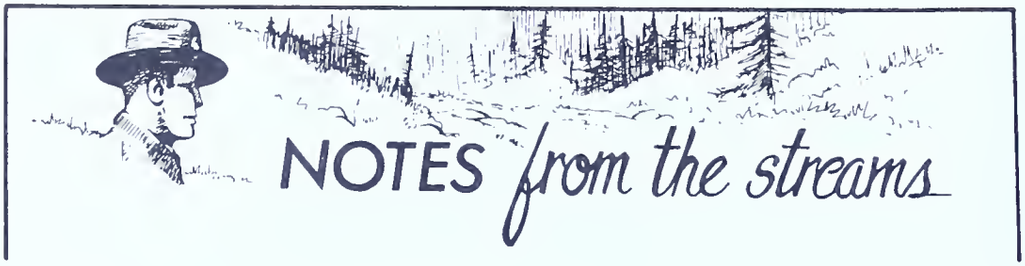
Left — Separate wing hair into two equal bunches and bind in spent position with figure-8 turns. Apply quick-drying cement to base of wings and flatten hair with tweezers when cement has begun to set.



Right — Release Snubber from lower hair bunch and pull hair forward, underneath shank. Tie off ahead of wings. Repeat with upper bunch, pulling hair over base of wings. Wind thread through hair butts and press butts back to flare. Whip-finish behind eye and cut thread. Trim flared hair to a large, round head and trim off hair at end of body. Apply black lacquer to trimmed head and to whip finish. To prevent thread from slipping, apply clear lacquer or thin vinyl cement to back of body.



Right — The completed Brown Skimmer.



THEY'RE BIG. . . IN THE JUNIATA!

On July 9, while working at the Muskrat Springs Access Area on the Juniata River in Juniata County, the attention of the Fish Commission maintenance crew was attracted to a shore fisherman who had hooked what seemed to be a very large fish. All work came to a stop when, after about fifteen or twenty minutes, the crew noticed that this fisherman was wading into water of ever-increasing depth as he continued to do battle with his quarry.

When he was in the water up to his armpits, the members of the gallery noticed that the fisherman was in some sort of difficulty. This was quickly confirmed when he began shouting for help in a most commanding voice. As he went under, Chris Taylor, a CETA employee with the Fish Commission, left his mower seat to take immediate action, going to the rescue. With the assistance of John Willower, a part-time employee, they managed to get the angler to shore. The odd part of the incident is that, in all likelihood, the fish would have emerged the victor of this spectacular battle for it had managed to circle the fisherman and securely tie his legs together with what, no doubt, was a rather heavy line! Thus bound, the chap was rendered helpless and might well have perished except for the quick action of the workers. Our hats off to them as well as to Charles Hess, the Area Maintenance Manager, who related this tale to me.

Frank A. Kulikosky
Assistant Supervisor
Southcentral Region

CURIOUS BUNCH!

Another fishing year is open and here come the questions I like to hear and answer best.

"When are you stocking?"
"Did you stock yet?"
"Have you stocked lately? I know, but where did you put them?"
"Are you going to stock again?"
"Did I get you up?"
"What are you doing home?"
"Don't you ever stay home?"
"What do you do in the *off* season?"
"Do you get paid to do this?"
"I left my license at home . . . can I still go fishing?"
"You're not going to arrest me for that, are you?"
"What kind of fish is this?"
"How long does it have to be?"
"Is it in season?"
"Do you like to fish?"
"When do you get a chance to fish?"

G. W. Frank Kann
Waterways Patrolman
S.E. Lycoming/Sullivan Counties

NO PROBLEM!

Digging leeks (wild onions) is a favorite pastime during early spring in McKean County. Since this season occurs during the closed trout season, we often see many cars parked along the roads near trout streams. It is difficult to determine whether the cars belong to leek hunters or fishermen. Puzzled, I asked Deputy Floyd South, "How can you tell a leek hunter from someone who is fishing early?" Floyd chuckled and said, "By smelling his breath!"

Don Parrish
Waterways Patrolman
McKean County

"LITTLE DEVILS"

The voice on the other end of the telephone ask, "Is this the '*Water Commissioner?*' " When I told him I was the Waterways Patrolman he said I would probably do and commenced telling me how so far this year he has managed to kill 3 snakes, the latest one on the previous evening by running over it with his car. He said he had "The Little Devil" with him now and wanted me to identify it for him. In this case, as in the previous kills according to his description, "The Little Devils" turned out to be Milk Snakes. Milk Snakes are some of the most beneficial snakes, feeding almost exclusively on rodents and other snakes. It staggers me to see these creatures indiscriminately killed by those unwilling to learn anything about them!

Ronald L. Hoffman
Waterways Patrolman
S/York County

HOW'S THAT AGAIN?

While patrolling Bradys Run Lake in Beaver County I observed a young fisherman of about 8 years old pulling in a stringer of six nice trout. The fellow next to him inquired as to which bait he used to catch these fish to which the young lad replied "*magnets.*"

I guess these trout we stock sure are durable . . . "tough as steel."

Mike Symbala
Deputy Waterways Patrolman
Beaver County

"RESERVED"

Special Waterways Patrolman Nelson Brackbill reported to me that at a campsite along Belmont Creek the night before trout season he observed several rods propped up along the creek. The rods were old ones without line or reels. They were to reserve their owners a spot come opening hour the following morning.

Kerry L. Messerle
Waterways Patrolman
N/Lancaster County

ROOM FOR MORE?

Deputy Clayton Schlemm and helper, Andy Krysik, were stocking the First Fork in season and pulled the truck up to a hole. There was a fisherman across the other side in the hole and he waved his arms and shouted "Don't stock any fish here. There are lots of fish here now and this hole doesn't need any." It's very rare that fishermen make a request like this. He got a supply of fish anyway.

Stanley G. Hastings
Waterways Patrolman
Cameron County

BAD BREAK!

Speaking of tough luck, Ben Yonkofsky of Kane caught his first musky, a 50½ incher, below the Kinzua Dam last spring and had to release it. Why? Out of season.

Don Parrish
Waterways Patrolman
McKean County

SLY THIEF!

Just before dark on the evening of June 30, Deputy Waterways Patrolman Dan Christine took a few minutes from his busy routine of checking boats and fishermen at Lake Williams to do a little fishing himself. In a short time he had caught 8

nice crappies and was laying them on the bank behind him when Ranger Ressler of the County Park Service came by. He walked over to Ranger Ressler and the two talked for a few minutes. When Deputy Christine turned to get his fish he noticed standing in the grass by his fish was a large gray fox having a feast on Christine's crappies! Deputy Christine ran the fox off before *he* could get his limit.

Ronald L. Hoffman
Waterways Patrolman
S/ York County

"LEFTOVERS"

Interstates 80 and 81 and the Pennsylvania Turnpike all course through Southern Luzerne County. These interstate routes provide many with easy access to our streams and lakes. With the latest gas shortage, however, we are experiencing a noticeable withdrawal of activity. Lakes that were heavily fished in past years are fished only by local residents now. Trout streams that provide much summer tourist recreation have no fishermen. If the gas situation betters itself this fall why not go fishing for some of these "leftovers" from this gasless summer?

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

FROM BAD TO WORSE!

Three days of hard fishing at Pymatuning Lake produced nothing on the stringer but one medium size crappie! As Ron Bollinger was heading into shore on the last day he heard a peculiar "slapping" sound. He had neglected to pull in his stringer, and the crappie had been knocked loose. It was stunned and lying on the surface about two hundred feed away. Not wanting to go home skunked, he turned the boat around to retrieve his fish. At the same time, a sea gull spotted the crappie and the race was on! The gull arrived first, picked up the fish, balanced it in his bill, and flew away while Ron was still thirty feet from the prize. And you say *you've had a bad day?*

Don Kingery
Deputy Waterways Patrolman
N/Allegheny County

NOT THE SAME!

Recently, while on patrol of South Poplar Run near Claysburg, I ran into a young man who has discovered a new species of trout. He was telling me about the nice trout that he caught on the 1st day on the Frankstown Branch, Juniata River, also near Claysburg. He said that he caught several nice rainbows and one *"El Camino."* When I asked him what an *"El Camino"* trout was he said, "Oh, you know, one of those yellow ones." I then explained that they were called **Palominos.**

Walter A. Rosser
Waterways Patrolman
Blair County

CORRECTION:
"TYPE 10 COUNTY GENERAL HIGHWAY MAPS"

In the August issue of the Angler we listed the cost of these fine maps as: "$1.06 per county." We have since been advised that the correct price is: $1.33 per county

Our apologies to the Department of Transportation and our readers for any inconvenience incurred.
J.F. Yoder, Editor

WATCH IT, POP!

While checking fishermen on the First Fork of Sinnemahoning Creek I noticed a boy of about 7 or 8 trying to hook a small potato chip bag with a spinner. The bag was only about 2 feet from shore and when going by I wondered why he was trying to catch a potato chip bag and not fish. While I was checking the fishermen about 30 feet upstream from the boy, the boy's father asked him what he was doing, and at about that time he managed to pull the bag out. He replied, "Dad, I'm hooking this potato chip bag out of the water . . . that's ***littering.***" He took the bag and gave it to his dad.

Stan Hastings
Waterways Patrolman
Cameron County

TALK ABOUT BEING LUCKY!

Deputy Waterways Patrolman Tom Ruckser was conducting routine patrol on Glendale Lake and observed a fisherman latch onto something pretty big. Ruckser watched as he pulled out a fairly large fish and before it was put into the boat, the fisherman proceeded to club the fish. Deputy Ruckser went over to see what the fisherman had caught and upon his arrival, asked the fisherman if he knew what he had caught. The fisherman's reply was "No." Deputy Ruckser then told him that he had caught a musky and measured the fish. The musky was taped at 30½ inches. Ruckser told the fisherman that before he clubs another fish to death, he'd better be sure that he has a *legal* fish! It's too bad that some people don't read the booklet of Fishing Regulations and Laws they get with their license!

Robert L. Kish
Waterways Patrolman
Cambria County



Ronald Bernoski, above, holds his 42-inch, 15-pound muskellunge, the first to be reported taken from Egypt Meadows Lake in Pike County.

Joseph E. Bartley
Waterways Patrolman
Pike County

Ashore & Afloat

by Gene Winters

The experts say winterizing a boat is less work than spring recommissioning. I'm not sure that's the way it should be, but it's pretty much a fact of life. Many boat owners, anxious to stretch the season to the limits, are suddenly faced with overnight changes in the weather. One day it's a warm, "spring-in-the-fall" day and the next, it's bone-chilling winter. Because it's mentally and physically difficult to work in frigid, windy air, the winterizing job is often rushed or many steps are overlooked. Such shortcomings are always unfortunate but, with today's prices and energy curtailments, such shortsightedness is inexcusable. Not only is an ounce of prevention now worth more than a pound of cure, it may be better than money in the bank.

The heart of any powerboat is its engine. Overwork it, abuse it, ignore it, and it will fail — *sooner* than later. So, don't rob yourself by ignoring the proper winterizing procedure for your powerplant. Your main goal is to remove or minimize rust and corrosion-causing contaminants that eat away at the engine during its idle months. Areas of prime concern are crankcase, water jackets, combustion chamber, fuel and ignition systems, and the engine exterior. The key is the proper and timely applicant of lubricants and rust inhibitors.

Let's take a general look at stern drives. If you have such a powerplant, it's easiest to change the crankcase oil *before* you pull the boat out of the water. Run the engine to warm the oil and get all contaminants in suspension. Then pump out or drain the old oil. Many boat owners wait till spring for the oil change but old oil tends to turn acid and promote internal rust and corrosion. When you change the oil, don't neglect changing the oil filter also.

Next, shut off the gasoline supply at the fuel tank. With the engine running at about 700–1000 rmp, quickly remove the flame arrestor and slowly pour about 3 ounces of a rust-preventative oil into the carburetor air horn. Then quickly dump in another 3 ounces or so to stall it out. Turn off the ignition.

Remove each spark plug and ground the high voltage lead from the ignition coil against engine metal to prevent the engine from starting. Crank the engine and, one by one, lower each piston to about the middle of its travel range. When each piston is in this position, squirt about an ounce of rust-preventative into the spark plug hole. (You can quickly check a piston's position by inserting an ordinary pencil in the spark plug hole. But *do not* crank the engine while this or any other foreign object is inserted.) Replace the *old* spark plugs and make a note to install new ones in the spring. Crank the engine over a couple of more times for good measure, and put the keys in your pocket. The balance of the winterizing is usually done more easily when the boat is ashore.

If you elect not to drain or pump all gasoline from the fuel tank for winter storage, be sure to add an accepted fuel conditioner to the stored gasoline. This treatment prevents the formation of gum and varnish deposits during the idle period. If you have a separate fuel line filter, drain it and clean it, and install a new filter cartridge. (I also remove the ceramic filter from the fuel pump bowl and install a new one each spring.)

Drain the stern drive unit completely. Refill with the proper gear lubricant. Remove the drive unit. Lubricate the universal joint bearings, splined shaft and couplings. Grease the unit's upper and lower swivel, gimbal bearings, and hinge pins. Remove the propeller (inspect it) and coat the hub and shaft with the recommended lubricant. Top off the power trim reservoir, if applicable, with the proper oil. Reinstall the drive unit or, alternately, store the drive unit off the boat in a dry place and reinstall it next spring. If you do reinstall the unit for storage, the lower unit should be left in the *down* position so that tension is relieved on the bellows and any condensation can drain as it forms during storage.

Outboard winterizing follows many of the steps common to a stern drive plus a few steps of its own. Flushing the cooling system with fresh, clean water is usually the first step. Large, heavy motors may be flushed with an attachment that uses a garden hose for a water source. Start the engine and idle it in neutral until it reaches normal operating temperature, making sure water is circulating into and out of the engine. This step removes any dirt, sand, and silt. Small outboards can be (securely) clamped to a water-filled 55-gallon drum but make sure the unit remains in neutral and the lower unit is immersed in water.

Before the flushing is completed, disconnect the fuel line from the engine and run it until it stops. Remove the carburetor air horn filters and squirt about an ounce or two of rust-preventative into the carburetor air intake. Crank the engine over several times with the cranking rope or starter motor. If you get caught in a pinch without any rust-preventative, you can substitute *automatic transmission* fluid as it has similar corrosion-inhibiting qualities. Now, squirt the same lubricant into the spark plug holes as explained for stern drives. Then, crank the engine several more times, reinstall the old spark plugs, and make a note to install new ones in the spring.

Again, like with stern drives, don't forget to drain and clean all fuel line filters. Also, remove all flushing plugs and make sure *all* water is allowed to drain to prevent freezing over the winter. Drain the lower unit and refill with the proper gear lubricant. Look for signs of water and metal filings in the old oil, a possible sign of leaking gaskets or seals in the gearcase or a bad head gasket. Remove the prop, inspect it and the shaft. Lubricate the prop collar and the shaft spline to prevent rust and corrosion.

It's important to keep an outboard upright during the storage months. This keeps the rust-preventative lubricants where they belong. Large engines are normally left on the boat during the winter but they should be supported with blocking under the lower drive unit to prevent unusual stress on the transom and hull during the time the boat is out of the water. Finally, wipe down all metal you can



Extending the boating season has many rewards, but make certain you don't sacrifice any part of proper winterizing when the weather finally makes you haul out your craft for winter storage.

find, interior and exterior, with a light coating of rust-preventative oil.

I continually stress the importance of keeping good, detailed notes when it comes to boating. And certainly, winterizing calls for some detailed notes. It's amazing how much you can forget when spring rolls around. Not only what you did but, just as importantly, what you did not do when the boat was hauled. Even then, you slip up once and awhile, hopefully with not too serious consequences.

This past spring, because of unusual demands on my time, I did some of the recommissioning work without the use of a checklist I normally employ. I forgot to reinstall the rubber impellor in the seawater cooling pump. (I remove it each fall so the rubber blades do not take a permanent set.) My present boat has an inboard with a water-cooled exhaust that sits right at the waterline when the boat is at rest. The exhaust gases caused the water beneath the outlet to swirl and I, mistakenly, assumed the pump was working. It was only when the temperature gauge suddenly took off for the moon I realized something was amiss. You can bet I went back to the checklist for another look.

Properly prepared, freezing and other atmospheric conditions will have minimal effect on any engine, stored indoors or outdoors. Sure, it takes some time — more time than most experts would have you believe. But it's time well spent. If you've any doubt, check out today's prices on an engine rebuild, major repair, or replacement. Today, we simply can't afford not to take care of what we have.

Understand, by all means, this article has just highlighted the major steps in winterizing an engine. Many of these steps, however, are the ones overlooked or poorly done. Consult your owner's manual for detailed information and special recommendations for your specific engine. If you've never looked at it, you may even find it interesting reading. I think, too, there's a sense of personal pride in taking care of your own. Good intentioned dealers and their personnel are often overworked, rushed, and interrupted and may, even unintentionally, miss some important steps. While reputable dealers stand behind their work, the long delay between time of omission and signs of damage may make it difficult for anyone to be sure what really happened.

If you can do routine maintenance on your car, there is little reason to fear tackling your boat engine. All it takes is a manual, a few very basic tools, some lubricants, a reasonable amount of time, and some tender loving care.

(Editor's note: with this column author Gene Winters concludes the Ashore & Afloat series which we've all enjoyed for the past five years. As the magazine's editor I'm indebted to Gene for his monthly faithfulness; as a boater I've learned much over those five years. Many thanks, Gene! You have our best wishes!)

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: There are two score varieties of sunfishes, the most popular of which likely is the bluegill. Also members of the sunfish family are bass, crappies and rock bass.

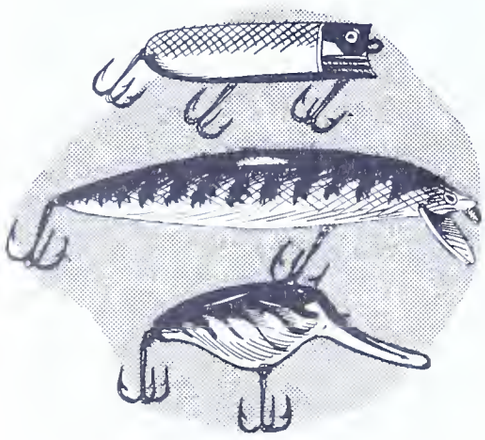
For late season trout fishing, go back to the streamers you used in the spring, especially in fishing for brown trout. The fish are approaching their spawning period and are hungry. Streamers up to three inches in length represent fat minnows.

Large and bushy dry flies, fished carefully on a long, fine leader, take smallmouth bass consistently, particularly in the autumn and in rivers and large creeks. Good patterns are bivisibles, hair-wing flies, and the ever popular Muddler Minnow.

Keep calm if a bass strikes at a lure and apparently misses it, or refuses it. Let the lure remain quietly in that same spot. Wait even as long as two minutes before imparting very light action to the lure. The fish will make another pass at the lure often enough to reward the patience you must have to use such tactics.

A long leader defeats the purpose of the sinking fly line, which is to get a fly closer to the bottom. The leader is lighter than the line, of course, and lifts the fly higher in the water than the end of the line. A leader only three or four feet long is recommended.

Action to be expected from a lure can usually be sensed by its appearance. The floater (top) has no lip and remains on the surface unless pulled under for short distances. The shallow diver (center) has a smaller lip. The deep-traveling lure (bottom) has a larger lip with a more pronounced downward slant.



Fish have short "memories." Rest a pool which you or some other angler might have disturbed. Give the fish time to calm down, and you may have reasonable expectations of a strike.

Learn to use any lure a variety of ways, including slow and fast retrieves, and at different depths in the water.

Fishing rods are sturdy and wonderful tools, but none will stand abuse, no matter what material is used in its construction.

A bay in a lake that has standing dead trees and other stick-ups is ideal pike and bass water. The angler's boat should be positioned within casting range of the obstructions. Surface lures are good in such areas, since they ride on top of the water and are not as likely to get hung up.

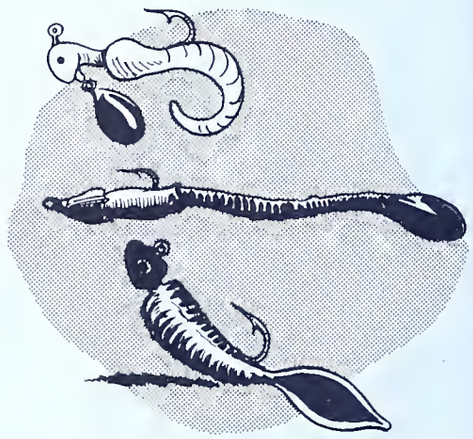


Big lures are not always required to catch largemouth bass. A bass bug small enough to be regarded as a bluegill lure, a small spoon, a streamer or bucktail of medium size, or a wet fly combined with a small spinner have all accounted for good largemouths, often when they are being used in fishing for panfish.

A full minute is not too long to let a bass bug rest motionless on the surface after it is cast to an inviting spot. Then the first motion should be very gentle, and the bug should be fished slowly all the way until the cast is completed.

You risk losing a bass if you rear back and try to set the hook hard the minute you figure the fish has taken a bait. There may be a belly in the line, and you will not be able to set the hook well. The better way is to take up slack line gradually and gently until you feel the fish tugging, and then set the hook.

Jigs and spinnerbaits dressed with worms or grubs made of plastic have a distinct advantage. They are soft, so they feel like real worms or grubs when fish take them. The fish will hold such a lure for a few seconds, while a lure that is hard and unyielding is usually spit out immediately.



A midget surface plug is deadly on a river or creek when fishing deep riffles and fast glides for smallmouth bass. Cast the little plug up and across the current, then retrieve it slowly as it floats down. Or, cast directly downstream and retrieve the lure very, very slowly against the current. With both methods, stop the retrieve from time to time and let the lure float over spots that look as if they hold fish.

Let a fresh breeze help you fish a lake, pond or stream pool from a boat. Maneuver the boat so that the wind will carry it over the area of water you wish to fish. Then explore the water with bait or lures as the boat drifts. Of course, this system will not work if the wind is so strong that your boat moves rapidly. Just a gentle breeze is ideal.

Fishing with baits and with such comparatively heavy lures as spinners, streamers and bucktails can put a strain on a fly rod, so light rods are not the best tools to use. A rod eight and one-half or nine feet long will do a better job with a minimum of risk.

Don't neglect any water when fishing for pickerel and pike. These fish are not always choosy about where they hunt for food.

A steady retrieve of a spinner is not the best in deep water. Move the lure in short pulls, vary the speed, and from time to time allow the spinner to sink slowly of its own weight toward the bottom.

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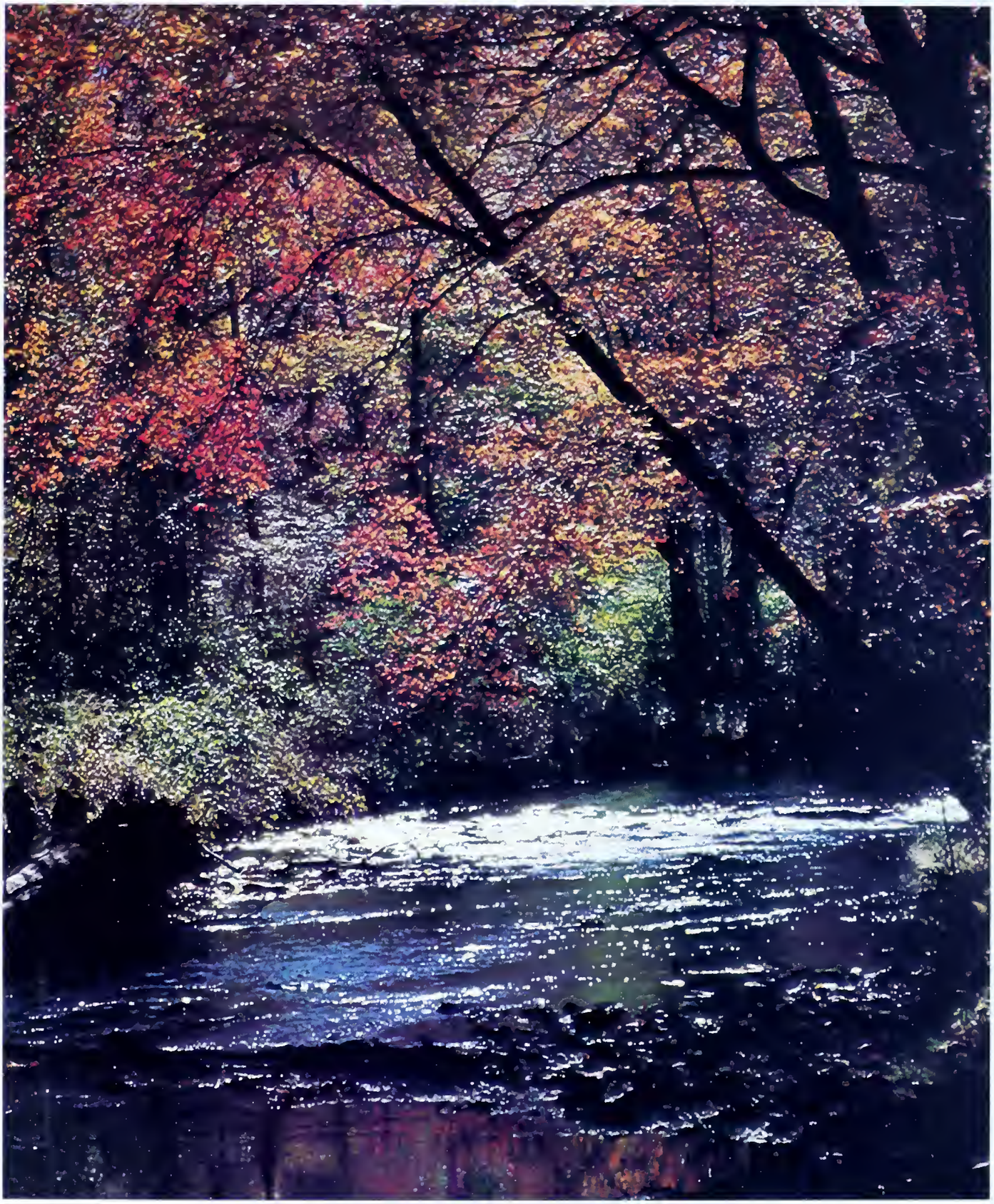
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PENNSYLVANIA Angler

the Keystone State's Official FISHING · BOATING Magazine...

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"THE NOSES ARE UNDER THE TENT"

It was not difficult to predict that an energy crisis would surely bring about inevitable insults to that part of the natural world for which we are responsible but the problem with protecting the environment has always been an indifferent public who will rise up in righteous anger only when their own ox is being gored.

The proposed Federal Energy Mobilization Board that could exempt energy projects from certain laws is a frightening first step.

The signing of a bill which resurrects the controversial Tellico Dam in Tennessee will have long-lasting adverse effects on any attempts to preserve those decent environmental laws that we have on the books.

The issue at Tellico Dam is no longer one of preserving the snail darter, even though some 45 national citizen organizations had used that as the rallying point in their opposition. For one thing, the benefit/cost ratio on the Tellico is so unfavorable that it is that which is setting the worst precedent of all. Despite all of these findings, the Congress passed the Water Resources Bill which contains scores of other hometown projects that members hold dear. Conservationists across the nation are going to suffer the effects from the signing of that bill for many years, but most of the public tend to be apathetic.

The Water Projects Appropriations Bill, signed by the President, exempts the Tellico Dam from the Endangered Species Act, the Dam Safety Law, and several other statutes.

Hitting closer to home, Senate Bill 1403, which has passed the U.S. Senate and is now in the House, is an attempt to return the regulation of strip mining back to the states and would emasculate the tough federal "Surface Mining Control and Reclamation Act" which so many people clamored for in 1977. Passage of this amendment, we believe, would make it tough on Pennsylvania with its own strict regulations, and eventually there will be the great hue and cry to soften Pennsylvania's laws.

Most people could not care less about the Tellico Dam or surface mining, but want to go their own wasteful ways as if there were no end to our resources. They seem to care very little about what they leave for their descendants. I am convinced that righteous anger is far preferable to indifference, and we are going to continue to fight with all we have to stop the rape of our natural resources within a couple of generations and try to restore some kind of order to the selfish madness that seems to have possessed far too many people.

But we sure could use some help!

Ralph W. Abele
Executive Director

Pennsylvania Angler

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FRONT COVER

Northeastern Pennsylvania anglers are very familiar with the chain pickerel since he abounds in a good many of their area waters. Ever searching for the next meal, a typical pickerel foray into the domain of the bluegill is nicely depicted on this month's front cover by Staff Artist Tom Duran, Jr.

BACK COVER

End of the line — almost! A Warren County angler brings in a rolling, thrashing Allegheny River muskellunge with ideas of its own. Early winter is unquestionably one of the most productive "fishing seasons" for the pike family. Photograph by Waterways Patrolman Paul Sowers

MONTHLY COLUMNS

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James F. Yoder, Editor

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"SINCERE HOPE"

Your June 1979 issue printed an article called "Neshaminy Creek" by Bob Jones. He writes an interesting and informative article until we get to the following sentence: "Tyler and Playwicki Parks afford the ideal setup for disguising a fishing trip within the trimmings of a family picnic, a tactic especially prescribed for fishermen feeling the scourge of a not-so-tolerating fishing widow." Shame on you for printing such a sexist, male chauvinist sentence!

It is my sincere hope that if there is a Mrs. Bob Jones, other than his mother, she like other fishing widows has found more pleasurable ways to occupy her time while her husband is busy fishing with his rod.

JUDITH A. RUDOLPH
Newtown

OK, Judith, shame on me! As penance, how about I sit down and tie a dozen Royal Coachpersons? Ed.

THOUGHTFUL!

While fishing in Rock Run near Ralston last August I lost my license. I hadn't realized it was missing till I got home. I had a good day, by the way. I felt awful because it was late in the season and I did not want to spend more money for a new license. So, for me fishing season was over, or so I thought.

About two weeks later I received a letter postmarked from Arlington, Virginia. I said, "I didn't know anyone in Virginia," but I opened it anyway. There was my license in the holder I had it in when I lost it, and a note: *"Found this on Rock Run, Sunday, August 13th. Thought you might want to fish some more!"*

Can you believe it? Thank you, Anthony Morris of Arlington.

By the way, if a man would come all the way up here to fish for trout there must be some darn good fishing in Rock Run. He's right. Hope you publish this because I lost his address and don't know how to get in touch with him to say thanks.

RICHARD RUCH
Cogan Station

"NOCK-NESS" MUSKIES!

A few months ago in Leaky Boots I read about muskies swimming with their head above the water. More people wrote in about seeing this. I understand a lot of people I know who fish at Nockamixon have seen this and last Saturday at Peace Valley Park, my father and I saw two swimming that way. Also, I hope you make 12 inches the limit on all bass throughout the state.

JIM HENNING
Norristown

LONGEST YET!

"The Empty Stringer" and the "Ole Fisherman," (C. B. handles for Richard C. Estes and G. "Bill" Freas, his father-in-law, both from Danville, Pa.) invited me to go trout fishing with them at Raystown Lake, Huntingdon. I'm glad they did.

The wind and showers tested us for nearly two hours when "Wham-O" I got a strike. Five minutes later and a third try with the net, we landed an 8½-pound brown trout. Needless to say, we soon allowed the wind to make us bring in the lines and head for shore.

At the boat launch, a Pennsylvania Fish Commission employee kindly measured the catch — a healthy 25½ inches. He said to his knowledge this was the *longest* brown to be taken in the lake.

Richard took his *Empty Stringer* (boat) home, but I feel I took home a record for me, as well as for Raystown Lake.

KEN TRUESDALE
McClure

P.S. For those fishermen interested, the big brown was taken on a six-inch Rebel trolled in the area near the breast of the dam.

"CAN STILL BE SAVED"

I have just finished "Return to Conodoguinet" by David R. Thompson in your August issue. I enjoyed reading of the author's return to the stream he fished as a boy. I was educated by Mr. Thompson's description of the creek's history and folklore.

But I was mostly pleased that Mr. Thompson was concerned about the deterioration of this warmwater stream. I live less than a mile from the Conodoguinet and I fish it often because it's close, and it's fun. Most "adult" fishermen have given up on the stream except for a few bluegill specialists and fanciers of turtle soup. I personally like to scout for sunfish and rock bass on ultralight equipment. Smallmouth bass of respectable size become more scarce as time goes on.

During the last five years I have seen a noticeable increase in siltation and a decrease in the number of bass I've caught. And the construction of another sewage treatment facility — in Middlesex Township — has been approved.

I hope that Mr. Thompson's fine article will draw attention to the Conodoguinet which has received worse treatment than it deserves. It can still be saved.

MICHAEL D. CHAMBERS
Carlisle

"FINE HERITAGE"

Some of us are more fortunate than others; some of us live near good fishing areas while others must travel to find a good hole. My son realizes that the Middle Creek project is only a few minutes away and there is no finer an environment for teaching young people about the beauty of nature.

Dean is shown here with an early morning catch he made — a sunfish. It is quite a catch considering he is only three years old. We released all our catches. As I explained why to him, he seemed happy to know that the fish he caught might make some other little boy a happy catch sometime.

As we sat there fishing and watching the geese, frogs, and snakes, I thought of how lucky he is since my father did not have the time to fish with me. Some day my Dean will be taking his son fishing and will probably recall our trips. It is a fine heritage and I am proud to be able to show my son the beauty of nature and to instill the ideas of conserving what we take for granted too often.

GERALD & DEAN VARNER
Stevens

"LONG RIDE"

The July issue of *Angler* just arrived and we were pleased to read about our favorite stretch of the Allegheny River. After finishing the article, however, we began to wonder if Ms. Gilman was paying attention while she was here.

To begin with 12 Mile Island — also known as Maple Island is a true island. There is no footbridge. This is my twelfth summer there so I consider myself an authority.

Our dams are well marked so that even without seeing the dams, our boaters are well protected by a series of warning markers. This stretch of the Allegheny is reasonably clean as our catches of bass and walleye prove.

Ms. Gilman finally stated that it would take a long time to get from Pittsburgh to

the Mississippi by boat because there are eight lock dams between Pittsburgh and East Brady — she even had a map to prove it.

If she feels that's going to make her trip to the Mississippi a long ride she's absolutely right, not because of the many lock and dams — but because she's headed in the wrong direction!

ED WODARSKI
Pittsburgh

Read the account again, Ed. On page 14, Ms. Gilman states they "left the Turnpike at Exit 5, put in at Harmarville, just off Twelve Mile Island," clearly establishing their position upstream of Pittsburgh. It was probably her reference to the location of those locks as being ". . . between Pittsburgh and East Brady" that appeared misleading. Had she reversed the order and restated it as "between East Brady and Pittsburgh," it might have more clearly indicated her position and the direction one would take making that long voyage to the Mississippi. Regardless of the stated order, it appears that Ms. Gilman did indeed know which way was up — and down — since she stated it was those locks and her inability to negotiate them which forced them to postpone "locking through" until another time. Ed.

A FIRST!

An incident happened to my grandson while fishing at a private pond a while ago. It never happened to me, and I never did witness anything like it, and I have been fishing over a period of 50 some odd years. While we were fishing, using plastic crawlers for bass, my grandson was reeling the worm in and as he was about to take it out of the water a frog about 12 inches long grabbed the crawler! The frog was released, but that is the first time I have witnessed anything like it.

MICHAEL HULPA
Canonsburg

TIES 'EM ALL!

I hope I'm not too late with my renewal. I don't want to miss next month's issue. In the summer my wife and I always take a weekend fishing trip to the places which we read about in the *Angler*. We enjoy these trips and usually take the *Angler* along to use for directions and advice on camp sites, boat rentals, motels, etc. Besides reading the *Angler* from cover to cover (I wish it were bigger so I could enjoy more good reading), it is very helpful on our trips.

In the winter I keeps a year's stack of the *Angler* on my fly tying bench and tie all the flies described. Catching (and releasing) fish is fun, but half my fun is coming home and looking up the fly I used to compare it with the one in the author's story. Sometimes my story outdoes the author.

TOM YEAGER
Bloomsburg

RAYSTOWN —

James T. Valentine
Waterways Patrolman
Huntingdon, Pa. 16652

Dear Sir:

On June 23rd my wife, my daughter and I looked in awe at a twenty-seven mile serpentine body of water named Raystown Lake.

Where and how do three strangers to this area begin fishing? Are the landlocked "stripers" really here? Will they cooperate? Is this the right week? What about the weather? Where do we begin?

These questions and many more plagued us, but we were in Huntingdon where people are generous in their help to strangers.

Several phone calls were placed, one of which awakened Mrs. Valentine for which I offer my sincerest apologies. A structure map of the lake was purchased and studied so that fishing time could be used more efficiently. The personnel of Seven Points Marina and anyone else who could be verbally collared were questioned. Finally a game plan emerged.

Shortly after dark, trolling with what we hoped would be the right lures, we let out varying lengths of lines.

One of the points on the island near the marina had looked promising on the map. At 9:30 p.m., my daughter had a strike — fish on! After several anxious moments the fish was brought to gaff and there in the brightness of the flashlight lay a beautiful eight-pound buck "striper."

Two more passes were made and my daughter had another strike — this time a much heavier fish; however, after a few minutes, the twelve-pound-test mono parted. We made our guesses — a musky perhaps, but who really cared in the quiet blackness of the night? We had achieved what we had set out to do and had an opportunity to meet the fine people of Huntingdon.

Words alone cannot truly describe our enjoyment so a photograph is enclosed for your perusal — the smile says it all.

Thank you for your courteous help.

JOHN W. STAUBACH, D.D.S.
York

P.S. If the autumn weather causes the "stripers" to school, then look for a couple of out-of-towners trolling around the points in a red and white Starcraft.

FLOAT TRIP —

Mr. Walter Lazusky
Regional Supervisor
Franklin, Pa.

Dear Mr. Lazusky:

Early this spring I wrote to you about a canoe trip from Lake LeBoeuf to Franklin. You answered my letter and all the questions I asked. Thank you for taking time to write. Another adult and I, along with five boys (Scout Troop 423, Center Troop, Beaver County), had a beautiful trip down French Creek. We left Le Boeuf at 2:30, June 17, arrived on French Creek at 3:30 p.m. Camped Twelve Miles above Cambridge Springs at a beautiful, secluded spot. Arrived at Sacgertown 4:00 p.m. on Monday and camped on an island, another nice campsite. Camped two miles below Cochranton on Tuesday at another nice campsite. Arrived at Franklin 2:30 on Wednesday and went down the Allegheny for a few miles, camped on another island and on Thursday and went to Kennerdale where our vehicles were parked. A little above French Creek as I saw it. The stream banks are absolutely clear of all litter, a real tribute to the people of Pennsylvania who use the stream banks. The main eyesore of the whole trip was four or five junked cars on the stream bank below Meadville.

The entire route I estimated to be about 100 miles to Franklin is a canoeist's dream. This stream has everything, rapids, obstructions of many types: trees, rocks, dam at Saegertown, deep stillwater, islands forcing a choice of channels. The scenery is wonderful as it meanders along, mostly hardwoods. We saw many mallard ducks, also wood duck . . . all with young. The "Great Blue Heron" population was amazing, also quite a number of Bitterns and Bank Swallows were everywhere as well as the Redwing Blackbirds, Grackles and Blue Jays. Animal tracks were found at all our campsites, primarily coon, fox and opossum; many deer tracks also. We practically had the entire stream to ourselves. On Monday we saw two fishermen and one motorboat. On Tuesday we cited four fishermen and one motorboat. On Wednesday we saw six fishermen and no motorboats. Where else could one travel so great a distance and only see a handful of fishermen and only two boats? I could highly recommend this trip to any group desiring an extended trip from the middle of May to the middle of June. Any time new literature is published such as maps, etc., about canoeing in Pennsylvania, I would appreciate receiving it. Thank you kindly for your help in making our trip a success.

GEORGE I. ROBBIE
Monaca

Waterside Wanderings

by Linda Steiner

November is never an easy month to love. There's nothing at all easy about this time of year, except giving in to the temptation to stay indoors when the weather changes from late autumn to early winter and sends icy rain and wind.

No, to enjoy November you have to search for its good points, and that can't be done from a comfortable chair. You have to experience it. Autumn leaves that blazed on the trees are now dark and sodden underfoot, and those high-blue fall days have given way to misty gray skies. The sparkling whiteness that turns the winter waterside into a crystal fairyland is still to come.

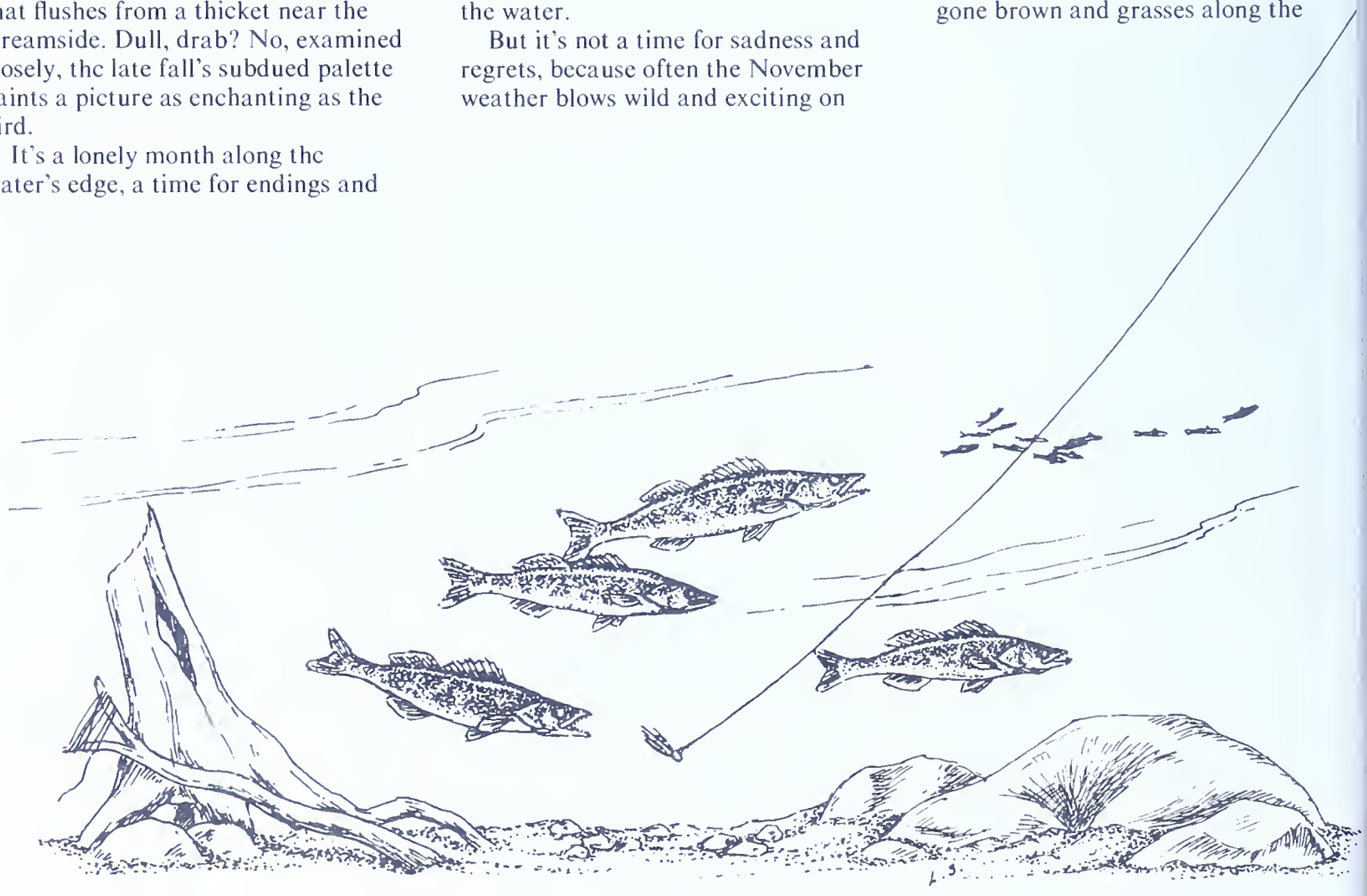
Yet, I do enjoy this season . . . perhaps because its beauty is quiet and you have to find out its secrets for yourself. November flies a flag of muted colors, gray, brown, silver, russet, the colors of a ruffed grouse that flushes from a thicket near the streamside. Dull, drab? No, examined closely, the late fall's subdued palette paints a picture as enchanting as the bird.

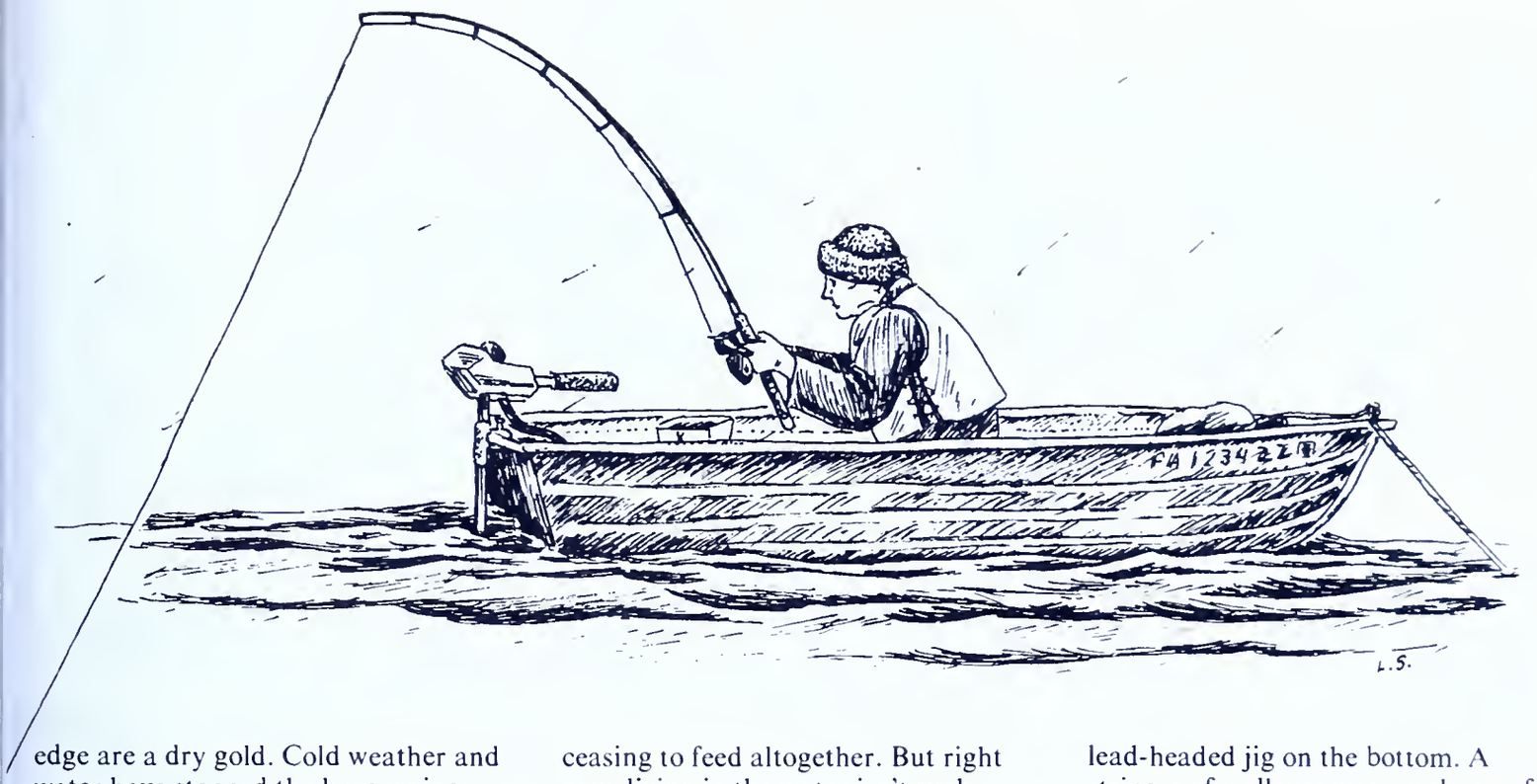
It's a lonely month along the water's edge, a time for endings and departings. This is the month the year says goodbye. Storms blow the last of the leaves and scatter the wildfowl southward. The lakes and streams of the state take on a new role, that of a feeding and resting place for northern birds on their way to ancient wintering grounds. Our waters see the departure of those they have nurtured all summer long; many will never return.

The wildfowl I see along the lakes and creeks now are transitory. Today, as I round the bend in a little brook I send a dozen ducks splashing and squawking into flight . . . tomorrow, all is quiet. The Canada geese and their brood that I watched all summer and fall on the bass pond have left a void. The blue heron no longer stands in the shallows to catch summer fattened minnows, and I even miss the kingfisher's jeering laugh as he swoops to another perch overlooking the water.

But it's not a time for sadness and regrets, because often the November weather blows wild and exciting on stormy days. The geese's clamorous honking and wing flapping ends as they finally rise to wing it southward for hours on end, often flying all night long. I never know, when I visit the waterside, what newcomers the approaching winter will have sent. Whistling swans gather on the lake, lazing the day away and bathing. Snow geese stray out of the fog, their white bodies decorated with black-tipped wings, or the incoming flight may be pintails, mergansers, loons, even errant oldsquaw and brant from the coast. It's a time of movement for all wildfowl, and Pennsylvania's waterways are stops along their highways.

For many of the birds, there was really no other choice but to leave. Their food supplies had all left, died or otherwise disappeared. The summer waterside that was teeming with life is quiet now. Cattails have gone brown and grasses along the





edge are a dry gold. Cold weather and water have stopped the burgeoning growth of many types of water weeds and microscopic plants and animals which once supported the myriad life forms in and around the water.

Many of the creatures that did not leave the area are already in their winter hiding places, a good number in deep hibernation. The heron and passing hawk can no longer find frogs, salamanders and snakes along the water's edge. They've all crawled under rocks or logs, or burrowed into mud and leaf litter. Crayfish and stream insects, like mayfly and stone fly nymphs, will winter under stones and debris in the water. Some insects will wait for spring as adults, others in cocoons or as underwater larvae, such as the caddis flies, dragonflies and damselflies. Other adults have already died with the onset of cold weather, but their progeny will face the winter as eggs.

The eggs of some fish, such as the brook trout which spawned in the fall, will not hatch until the water warms in the spring and they complete their development. Other adult fish, such as the pike, perch and sunfish, must survive the winter to lay eggs for the next generation in the spring. Young fish, like the tiny bass born only a few months ago, will have to meet the rigors of winter as best they can as fingerlings.

When the water becomes extremely cold, in late winter, many of the fish will become semi-dormant, some ceasing to feed altogether. But right now, living in the water isn't such a bad spot. Once water is heated, it loses that heat relatively slowly and stays rather warm while the air above quickly chills. A micro-climate is created in and around it, with large lakes being the last to freeze.

Of particular interest to the angler is the fact that this creates some excellent fishing, and gives me a good reason to go outdoors and find out about November. The surface of lakes and ponds is cooling, being chilled by masses of cold winter air. As the water cools, it becomes denser. Cold water, like cold air, sinks. The cooler surface water descends, as the warmer bottom water rises, creating a turning over and mixing of the waters. In a lake, all the water becomes nearly the same temperature, a cool temperature that, for a while, is just right for a burst of activity in the fish that had been stressed while the summer heat was on.

More and more fishermen are getting out their long johns and woolen caps, as well as musky and walleye rods, and heading to the pike lakes and larger rivers for some of the best fishing of the year. Avid walleye fishermen tell me that the nastier the weather, the better the fishing, and the icy rains and snow flurries just make the catches that much better!

In any case, I have seen the fishermen on the upper Allegheny River, huddled in their winter jackets, backs to the cold rain, bouncing a lead-headed jig on the bottom. A stringer of walleyes was ample proof of why they were out in such weather. The water where the walleyes are isn't as close to freezing as the air the anglers are in . . . just comfortable enough to make the fish hungry again.

In the lakes, the mixing of the waters and the rain and wind, splashing the surface, makes more dissolved oxygen available to the fish. Muskellunge and pike, as well as bass and trout, were suspended in deeper water when the lake became intolerably warm in the summer. This was the only place where they could find cool water and sufficient oxygen, and had to take their food there. Now they are free to prowl at all depths of the lake, from shore to shore, top to bottom.

I sometimes wonder, with the renewed activity, if the fish don't feel some of the same urgency that sparks the animals above the surface into action, to get the last that Nature has to offer them before the winter. I think I feel some of the same restlessness, and fishing is as good an excuse as any to be outdoors to see the coming and going of the waterfowl. Rounding an island in the river, going to a good walleye spot, I flush a last group of mallards and as they turn upriver I wonder if they'll set down among the decoys of a couple of duck hunters I passed earlier. We seem to be the only ones out in the November rain . . . the only ones who don't find the late fall days so hard to love.



MEALS from the CREEL

by Margaret Karch Zaimes

I take my hat off to the family cook — one who can turn out three palatable meals a day — day after day and year after year and continue to stay within the family budget. Especially so today with our rising cost of living.

She's learning, as our grandmothers did, that meals should be planned for a week or better yet, a whole month ahead of time; making use of what is on the shelf or what is economical to buy. I am sure that many days she would rather broil a thick steak, or go to a restaurant and be served like the queen she is. Reality always intrudes on this fantasy, she knows "little Joe" has outgrown his shoes faster than anticipated or caring for Suzy's teeth comes first.

So, with pencil in hand, she plans the family meals. Day by day, she checks the food ads of her favorite market looking for the most economical foods to buy when she goes grocery shopping.

As always, "variety is the spice of life" and it is not easy to avoid monotony when it comes to meal planning or to cater to the whims of different appetites. She is always searching for new ideas or devising new recipes to avoid the humdrumness of three meals a day.

When the fishermen go fishing, she insists on ice in the cooler to keep those fish fresh. After all, there really isn't anything she can do with spoiled fish except bury them!

Every fish from bass through catfish right on down to the much-maligned carp can be turned into an exciting meal.

If it's catfish, large or small, arriving home on that crushed ice, she'll know that she can scratch the more expensive meat from her list and use the fish for one or more meals.

Mentally she calculates how much of the fish she will need for the recipe she has and will separate that amount. The remaining portion will be wrapped and frozen for future use. Of course, this is after the fish has been skinned and carefully cleaned.

The best way to skin a catfish is to cut through skin all the way round the neck. Drive a nail through a board and impale the head on the nail. Careful, don't let the barbed fins jab your fingers. Using pliers, grab the skin and peel it off the body. Using a sharp knife, lop off the head and tail and your skinning job is complete. Proceed with the gutting and, if large enough, fillet or chunk the meat.

Years ago, while fishing the Dela-

ware for shad, I hooked what I thought was a log. Try as I would I couldn't free my hook. The only alternative was to reel in my line and hope I could retrieve most of it and perhaps the shad dart on the end. Carefully, I reeled in that line pulling the log behind it. As it neared shore I suddenly realized it was not a log at all. Instead I had hooked a basketball size bird's nest of leaders and shad darts with a huge catfish hanging on for dear life. Now that was a lot of catfish, much more than my family of four could consume in one meal.

This being my first experience with catfish, I searched my cookbook for a recipe. Unfortunately, the only recipes included in that "kitchen encyclopedia" were for fish from the sea. My food budget and my conscience would not permit one particle of that fish to be wasted.

The boys had curled up their noses when I mentioned we would eat that black beauty so I knew I'd have to invent a recipe with eye and taste appeal. One of the filets was cut into thick jumbo shrimp size strips and "butterflied."

Each flared-out strip was lightly dusted with flour, dipped in a mixture of 1 beaten egg and 1 cup of milk and then coated with yellow cornmeal. I did this part of the recipe early in the day and refrigerated the fish until time to prepare dinner. At mealtime, I fried them in deep hot oil until the fish flaked easily when fork tested. Coated and well-chilled, the fish will not absorb the hot oil while frying.

Before serving the fantailed catfish, I garnished them with sprigs of parsley and lemon wedges and served a mild cocktail sauce on the side.

To vary the coating, I frequently mix dry bread crumbs with finely chopped English walnuts or almonds and use this instead of the cornmeal. Today's price of lemons far exceeds my budget and I now serve wedges of fresh lime with fish.

Catherine the Great set a precedent when she ordered the court artisan to make the first tureen. A queen's whim, perhaps, but I like to think she recognized the need for a serving dish that would keep food hot at the table. After all, the old castles were drafty and had no central heat. In any event, it did keep food hot until served and gave an air of elegance to a simple meal.

The dish with the lid became popular with the crown heads of Europe and the wealthy of that period. Each demanding a different design, ranging from stately (or humorous) works of art down to the macabre.

Like today's fanciful cookie jar, the tureen is making a comeback. Recently, while browsing a gourmet shop, I discovered no less than 20 different tureens on display. Some of them were artistic fantasies, others in the form of sea shells, birds or animals.

I fell in love with a shell tureen and a beautiful white rabbit, visualizing how impressive a fish chowder or game stew would be when served from either of these beauties.

A quick glance at the price tags reminded me that my simple white ironstone tureen at home had made company fare out of many a chowder or stew for the past 20 years.

A favorite fish chowder of mine is made with fresh or saltwater fish and is actually a gumbo because it includes okra and rice.

I find it is much easier when cooking a new recipe, to assemble all ingredients in the proportions needed and in the order they are to be used before I put the kettle on the stove. This eliminates a frantic search for a spice or the discovery that a special ingredient just isn't there because I forgot to add it to my shopping list.

- 4 strips of slab bacon, chopped
- ½ cup coarsely chopped celery
- ½ cup chopped green pepper
- ½ cup chopped onion
- 1 clove garlic, finely chopped
- 1 pound skinned catfish fillets or other fish of your choice
- 2 cups chicken or beef broth
- 1 16 oz. can tomatoes
- ¾ lb. fresh okra or a 10 oz. package of frozen
- 1 tsp. salt — more or less according to taste
- ¼ tsp. pepper
- ¼ tsp. thyme
- 1 whole bay leaf
- 1–2 drops Tabasco sauce
- 1½ cups hot cooked rice — long grain

Using a heavy kettle or Dutch oven, slowly fry chopped bacon until crisp; remove from pan and reserve. Add celery, green pepper, onion and garlic to bacon drippings and saute until vegetables are tender. Add broth, tomatoes, okra and all the seasonings. Cover the pot and simmer for 20 minutes.

While the pot is simmering, cut the fish into 1-inch pieces. After vegetables have simmered 20 minutes, lay fish pieces on top of vegetables. Return cover to pot and simmer for another 15 minutes or until fish flakes easily when fork tested. Remove bay leaf before serving.

Cook the rice according to package directions while gumbo is simmering. To serve this delicious gumbo: place ¼ cup hot rice in each of 6 bowls and ladle gumbo over it. Distribute reserved bacon bits over top of each bowl.

I prefer the Italian pomidoro tomatoes in this recipe, but it will work equally well with the same quantity of canned tomatoes of your choice.

Bouillon cubes are handy things to have around and 2 cubes dissolved in 2 cups of boiling water may be substituted for the broth.

What is more prolific than a rabbit? You guessed it. Our garden zucchini and it is the one vegetable the cottontails living in our area do not munch on. As the zucchini pile up in my refrigerator, I look for ways to use this succulent low calorie vegetable.

The following recipe for pureed zucchini can be used in soups as is or in combination with other soups.

- 2–3 medium-sized zucchini, cut into cubes
- 1 onion, chopped
- 2–3 ribs of celery, chopped
- 2 chicken bouillon cubes, dissolved in 1 cup hot water
- dash of celery salt
- dash of dry mustard
- 1 can of cream of mushroom soup
- 1 cup uncooked fish

Place vegetables in large cookpot, add dissolved bouillon and seasonings and enough water to almost cover vegetables and bring to a boil. Lower heat and cook until zucchini is soft. Pour into blender cup and puree. Fill pint-size freezer containers with the puree, cover and cool in refrigerator before freezing.

When ready to use — thaw and heat to boiling. Add the mushroom soup and one can of water or fish broth and heat to just under boiling. Add the fish and simmer until fish flakes easily when fork tested.

Add flaked smoked fish and make this a real gourmet delight.

Many anglers are still seeking their first muskellunge — this man is trying for 100!

NINE MORE TO GO

an interview with musky hunter Dale Coombe

Dale Coombe with two mounted muskies. The author sought Dale's "secrets" for our readers; found him most willing to share his knowledge of the fish.



by Don Shiner
photos by the author

Dale Coombe, Bloomsburg, Pa., has been angling in freshwater for several decades, but the last 5 years have been outstanding by any standard. In that short time Dale landed 91 muskies, the largest measuring 47 inches in length and weighing 29 pounds. As would be expected, his sights are set now on a score of 100. With only 9 more to go, success is within his grasp within a season or two.

There were years when Dale tried unsuccessfully to catch these great gamefish. By this own admission, his astonishing success came through persistence and a gradual refining of techniques.

I heard of Dale's success and made an effort to discuss musky fishing at great length with him. Part of this interview, in which he shares his knowledge of musky fishing with readers of the *Pennsylvania Angler,* is printed on these pages.

Shiner: Dale, I understand that you've caught 91 muskies so far. How long have you been fishing for this great gamefish, and how soon do you

Dale, left, and fishing buddy Ray Rupert carefully arrange tackle, preparing for a long day of musky fishing.



expect to top 100?

Coombe: That's hard to say, really. I've been fishing for muskies since 1973 and my goal now is to land 9 more. I'm hoping one may be of record size.

Shiner: Let's begin this interview by imagining that you have just launched your boat. You're set to go for muskellunge. Are there any special places — weed beds, deep water, inlets or log jams — that you search out immediately for this gamefish?

Coombe: I usually start fishing right at the boat dock. I seldom waste time motoring to the opposite side of a lake. I best like weed beds in shallow water — water 3 to 4 feet deep, though with available deeper water close by. Of course, waters that I usually fish for muskies seldom have depths more than 10 to 12, or 15 feet.

Shiner: Do you motor troll or cast for them?

Coombe: I do both. I prefer casting because I can get more action out of my lure. But when my arm tires, I troll a while. After my arm has rested, I return to casting.

Shiner: What kind of equipment do you use for muskies?

Coombe: My tackle is on the heavy side. I use a Heddon Musky rod, Daiwa spinning reel and 40-pound-test monofilament line. Muskies upward of 4 feet or more in length are pure dynamite! It requires heavy gear to control them. With light tackle the fight can be a standoff with the musky finally winning its freedom.

Shiner: Do you have a few favorite lures for these fish?

Coombe: My favorites include the pike minnow, Jitterbug and a Doctor spoon with a 9-inch rubber worm trailing it. This year I began using the Suick jerk baits.

Shiner: In your opinion, does lure color play a role in attracting muskies? Do you have any color preference?

Coombe: Some fishermen say color makes a difference, but I have no color preference. Most of my lures are all white, striped green or some shade of brown.

Shiner: Do you have a system for searching out muskies, or do you, like most of us, begin fishing "blind"?

Coombe: I really don't have a system. I start fishing as soon as my boat leaves shore and I usually work my way along the shoreline until I raise one or have a follow. Then I'll stay in that area.

If I plan to fish for muskies, that's all I do on that outing. Some fishermen try for muskies for an hour or two, then, with no success, they turn to bass, or maybe walleyes. If one concentrates on one kind of fish, he's more apt to score.

Shiner: Do you change lures often? That is, do you frequently change from one color to another when action is slow?

Coombe: No. I have faith in my lures, so I don't change often. I give each lure at least an hour's try before changing to something else. I don't believe in changing lures every few minutes.

Shiner: Are there times when you change from a topwater lure to an underwater type, and then back to a surface lure again?

Coombe: If conditions are right (surface fairly smooth) I may use a topwater lure for an hour or more until I'm convinced that they won't come up. Then I'll try an underwater type.

Shiner: You mentioned earlier that you prefer shallow water. Will you elaborate more on this?

Coombe: A large number of my muskies have been caught in shallow water. If they are in deeper water, they usually suspend a few feet beneath the surface. I often pick up muskies suspended at 6- to 8-foot depths on my depthfinder. Like other fish, they go down deep and lie in weeds, but when it's time to feed, many come into the shallows or suspend at a shallow depth in deeper water — at least in lakes where I fish.

Shiner: Do you have a favorite time of day, say, early morning, midday, late afternoon or evening? What about fishing after dark?

Coombe: I prefer the morning and midday. During the summer heat, I often fish after dark.

One evening my brother and I were fishing the North Branch of the

Susquehanna River. We had caught one musky. At nightfall we were working our way back to the boat dock when we decided to try a Jitterbug bait to see what it would do. Within an hour we caught four! Some of these we released. From then on, on subsequent trips, we used topwater baits regularly.

Shiner: If you would have stayed longer that night, do you think that you might have caught even more?

Coombe: I doubt that. They seemed to stop feeding around midnight.

Shiner: Dale, do you have a preference for cloudy or sunny skies, rain or windy weather for muskies?

Coombe: Well, I prefer a clear day. I have caught some during cloudy weather, but I prefer sunny skies with a faint chop on the water.

Shiner: Some fishermen say that it averages a 1000 casts or more per fish. Have you found this so?

Coombe: Well, that's hard to say. It's a rare day that I don't have a hit or at least a follow. I may average 20 hours of fishing for each fish caught. Most veteran musky fishermen don't have to make 1000 casts to get one. If you're fishing strictly for muskies and use the "speed" method, I think you'll see one in a lot fewer casts.

Shiner: What size lures do you prefer? Do you prefer large sizes . . . or have you taken muskies on smaller, bass-size baits also?

Coombe: My dad's favorite saying was, "Use big bait to catch big fish." My lures average 8 to 9 inches in length, or longer . . . and I don't use any wire leader.

Shiner: How's that again? You don't use any heavy leader?

Coombe: I use 40-pound-test nylon monofilament line as my casting unit, and that's my leader too.

Shiner: Some prefer to use, say, a four-foot length of heavy 40- or 45-pound-test line as a leader and then have lighter line on the reel spool, say, around 17 or 20. Do you recommend this?

Coombe: I won't recommend that. There's always that chance that you may sock into a real heavyweight and you may not be able to control him as well. That's not enough strength to hold a big musky, especially in stump-infested water. The minimum strength line, I'd say, is 25-pound-test.

Shiner: If you see a fish roll on the surface and suspect it's a musky, do you move in and try to take him?

Coombe: Yes. Whenever I see any surface activity, I usually try to go there and try to take him. Sometimes they'll hit, but again, they may just be rolling playfully on the surface.

Shiner: Were most of your catches made during the hot summer weather, or mostly during spring and fall months?

Coombe: Well, a lot of mine were caught during the hot weather of summer. It seems that muskies are affected by warm weather. It seems



that you can provoke them into striking more at that time — as if the warm temperature gives their temperament a "shorter fuse."

Shiner: Dale, do you use a "stop and go" method when retrieving a surface lure, and how fast do you reel or retrieve most lures?

Coombe: My reel has a 5 to 1 ratio and I reel it just as fast as I can comfortably turn the handle . . . and straight in, with no pauses.

Shiner: Do you think that noise or commotion in water attracts muskies? For example, if your plug has picked up grass or moss, do you slap the surface with it to try and knock off this debris? Does this attract or alarm muskies.

Coombe: I do that quite often. Whenever grass hangs on my lure I may slap the surface five or six times. Often on the very next cast I catch one. That indicates that muskies are attracted to some noises.

Shiner: Have you ever teased a musky into striking your lure. For instance, let's say a musky has followed your lure to the boat but stopped short of seizing it. Do you do anything to make it lunge for the bait?

Coombe: I've tried the "Figure 8" most often recommended, but it has never worked for me. I've had muskies follow in four or five times without striking. I just keep casting and when the plug nears the boat, I often change the angle of my retrieve. This teases the fish into striking at times.

Shiner: Have you had many muskies strike near the boat?

Coombe: I'd say that 25% of my muskies hit right at the boat. The change of angle in the retrieve often is largely responsible for them seizing it.

Shiner: Suppose a fisherman prefers to motor troll. Do you have any suggestions for this type fishing?

Coombe: Everyone has a different method of trolling. I troll rather fast, usually in a straight line and I occasionally pick up my rod and jerk the lure around. This seems to encourage followers to lunge for it.

Shiner: Do you make several passes over an area, and then change lures before making another try in that same area?

Coombe: I use the same lure for an hour or more before changing. If I do change, I may switch from a solid lure to one that is jointed. As I mentioned earlier, I have faith in my lures. They've caught quite a few muskies and I hang in there with them.

Shiner: I guess if one has confidence in the lure he is using, fish are usually caught on it.

Coombe: Right. An old-timer told me that you can't catch fish when your lure is out of water. I don't waste time changing from one to another. I keep the lure in the water almost constantly.

Shiner: Do you use weight to get lures deeper while trolling?

Coombe: No. However deep the lure runs, that's the zone I fish. I've trolled a surface lure at times with success. But then I reduce my speed because noise is more essential than speed in this type lure.

Shiner: You mentioned jerk-type baits. Have you had good success with these?

Coombe: So far I caught four muskies on this type lure. I like to work this type, so I expect to keep using this type lure more and more.

Shiner: Where do you look for muskies during the cooler weather of autumn?

Coombe: I usually hang in close to the shoreline or near inlets. Where the minnows are found, that's where muskies stay.

Shiner: Do you fish for muskies right up to freeze-up?

Coombe: I fish every chance I get, right up to freeze-up. I seldom fish through the ice for them.

Shiner: Before I switch off this tape recorder, do you have any suggestions, other than what has been said, to help those who have just caught musky fever and want to be reasonably successful?

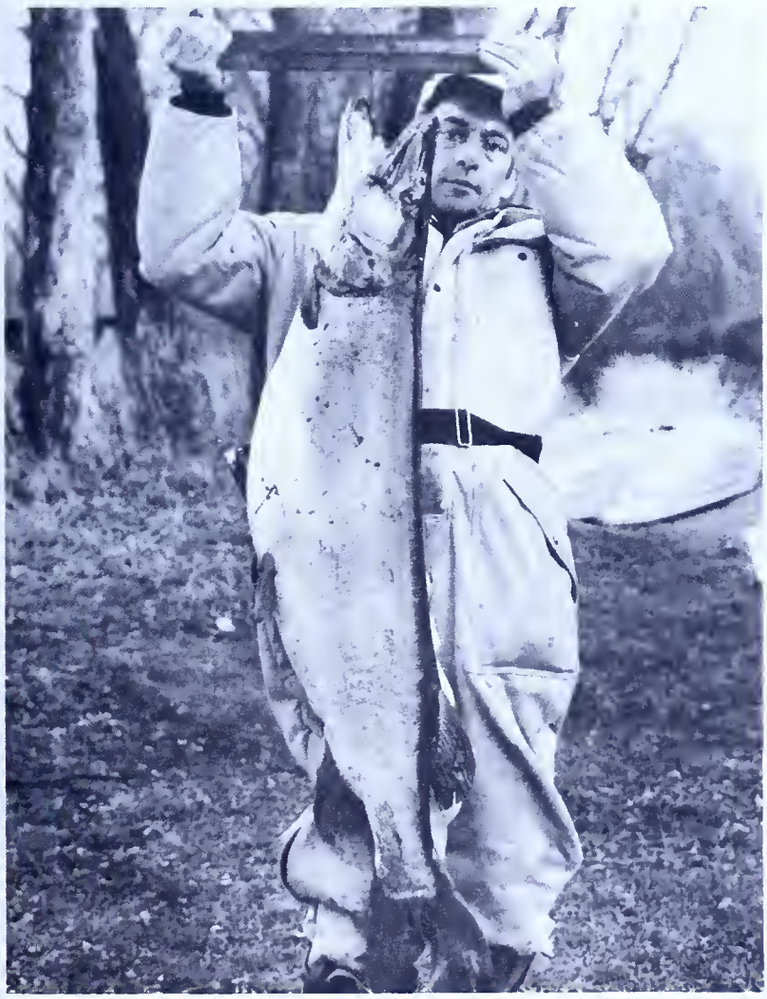
Coombe: Well, the speed method has been most successful for me. It took quite a while to learn this, but I've found that the faster one retrieves his lure, the better his chance of catching a musky. These fish will challenge almost anything that is moving near them.

Here's another tip. When musky hits, set the hook several times. Sometimes the musky will hold the lure in his mouth, come right up to the boat and then spit it out. It's difficult to jerk the bait through those big teeth to set the hooks properly.

Last, if you intend to keep the musky, I recommend hitting it on the head with a wooden club before attempting to net it. That really calms them down. On the other hand, don't hit it if you have any intentions of releasing it. Net it carefully. Work the hooks free with a minimum of handling to insure its survival.

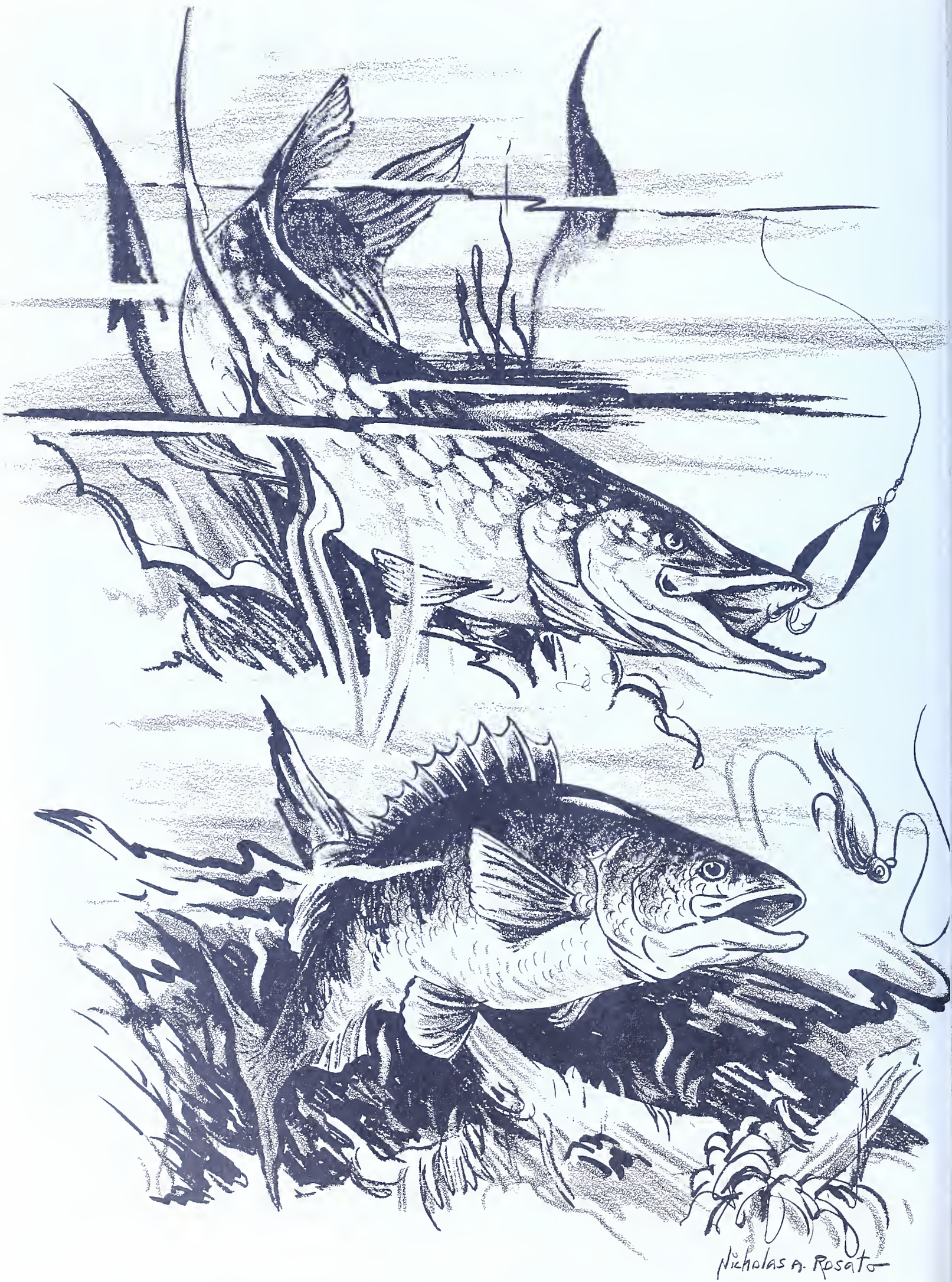
I might also add that you should go fishing every chance you get. Other than that, just hang in there and fish for these really great freshwater gamefish.

It seems that everyone has a goal and musky hunters are no exception. Dale Coombe's is that 100th muskellunge. Whether or not they sought it as a goal, last year, fishing buddies Ted Fitch (below left) and Art Byerly (left in the photo below right) brought in the Number 1 and Number 2 muskies for 1978! Ted is shown with his: 52½ inches, 43 pounds; Art's was 51 inches, weighed 35 pounds. Ted fished French Creek with a homemade jig; Art Byerly used a jointed pikie minnow in tempting his trophy from the depths of Conneaut Lake.





Next month, author David R. Thompson will give us an update on the Juniata River musky fishing, including some inside information from musky hunters Bob Cook, Ray Stydinger, and Mike Brown. Cook has already caught over 500! His goal? A 50-incher! And, just to prevent crowding the Juniata with every single musky angler in the state, we'll share with you Art Byerly's prediction that a new State Record Musky will come from Conneaut Lake. Why? Byerly, Fitch, and Al Novotny have all hooked, fought . . . and lost him!


Nicholas A. Rosato

Knowledge is the key to success . . .

Fishing for Pickerel, Pike & Walleyes

by Richard F. Williamson

photos by the author

"Boy, what a lousy day this has been," groans angler Joe. "I didn't hook a decent fish, and that's tough *luck*."

"Can't understand that," replies his pal, Jim. "I had good *luck* in every spot I fished and got some beauties."

Both Joe and Jim are basically wrong.

"Luck," good or bad, has little effect on fishing. Except, of course, if you are "lucky" enough to find a few hours to devote to the sport when stream and weather conditions are right and the fish are hungry. In actual fishing, the angler creates his own good or bad luck. The angler who consistently makes good catches doesn't put his trust in the whims of fate. Rather, he has a knowledge of the fine points of angling and puts that knowledge to work for him. The fisherman who complains of bad luck would be more realistic if he put the blame on his own inept angling. We covered this last month, but it bears repeating.

No angler ever learns all there is to know about catching fish, but there are six areas in which he can acquire the knowledge and skill to turn his "luck" from very poor to very good. They may be listed as follows:

1. Knowledge of fish and fish habitat.
2. Proper tackle.
3. Correct use of tackle.
4. Knowing when to use artificials or baits.
5. Correct selection of lures and baits.
6. Mastery of a variety of fishing methods.

This article will deal with these areas as they apply to northern pike, chain pickerel and walleyes. Last month, we discussed their application to the sport of fishing for both largemouth and smallmouth bass.

Northern pike are ambush killers, vicious and evil-tempered, capable of putting up a stout final battle at the side of a boat or on the rim of a landing net. They attack and eat anything not bigger than they are, including their own young! Even blustery winds, cold weather and rain do not keep them from feeding. And if they are not hungry, they attack their prey seemingly out of pure cussedness.

Pike prowl water that gives them opportunity to set up ambushes for their prey; that is, water that contains weeds, stumps, submerged logs and fallen trees. Lying motionless except for a slight stirring of their fins, they are ready to arrow out from cover and attack a passing fish and on occasion to dart to the surface to take a struggling mouse or frog, or even a squirrel or a duckling. Their long, slender bodies give them great speed and accuracy in their attacks.

Pike fishermen like to work weed beds, spreads of lily pads and brush piles in comparatively shallow water. But the "lucky" fishermen also know that the largest pike often roam deep water that gives them suitable cover that is not obvious to the angler.

And the experts do not come up with a traditional bad luck alibi — that pike lose their teeth and get sore mouths in the hottest period of the summer and therefore go off their feed. The fact is that pike regularly lose teeth that are replaced by new teeth that have grown under the old ones, and the real reason they are not so willing to strike bait or lures in midsummer is that the water is too warm, and they are not really hungry.

Pike fishing calls for pike tackle. Casting or spinning rods that have plenty of backbone are needed to set the hooks in the bony mouth of a pike and to hold it out of the underwater obstructions it will seek to regain its freedom. Lines of no less than 12 or 15 pounds test are essential, and a wire trace about six inches long will give a hooked pike something between the line and lure to chomp on in frustration after it is hooked. Hooks on pike lures must be kept razor sharp, for the mouth of this species of fish is tough and bony.

It should be noted that pike can be caught on fly rod tackle, but the outfit must be strong. A large angry pike can wreck tackle used in fishing for bass or trout.

The "lucky" fisherman knows how to handle his tackle to deliver the lure or bait to the chosen spot, to manipulate it to excite or anger a pike, then to keep the fish under control once it is hooked. He has developed the art of making a lure look alive in the water, wobbling, darting, making desperate efforts to escape. He sets the hooks hard when a pike strikes, keeps a taut line to be ready if the fish leaps into the air in an effort to shake free of the lure, makes no attempt to land the fish until it is completely whipped, and then uses a landing net or gaff smoothly and quickly, fully aware that an apparently exhausted pike is capable of a last-ditch break for freedom.

Every angler has experienced periods when pike are willing to take a shot at any lure that moves in the water. But the fisherman who insists on using only artificials can be deeply disappointed, for there also are times when pike want only *live* bait. That *italicized* word is the key to bait-fishing for pike. These fish ignore bait that appears lifeless. They insist on prey that is alive and, even more desirable, making desperate efforts to escape. The ideal live bait for pike is a minnow, a perch, or a sunfish four to six inches long. (Editor's note: small perch or sunfish are legal bait provided they are caught by legal means, i.e., hook and line — not in minnow seines.)

A lively frog, hooked through one leg so that it has freedom of action, is



Beds of lilies are especially attractive to both pickerel and pike always seeking minnows, frogs, or other food.

another excellent live bait.

Often the bait can be cast into the water and left to move around as it pleases, but there also are times when a minnow or frog impaled on a treble hook and suspended under a bobber (which keeps the bait just above a bed of weeds or a bit of sunken brush) will take big, hungry pike. This bait fishing tactic is especially effective in rivers, where current carries the bobber and bait downstream, or in a lake or pond where a good breeze will keep the bobber moving. With bait the size required for pike fishing, incidentally, the bobber should be at least an inch and a half in diameter so that the angler can see it at all times.

One basic rule for catching pike is to give them what they want, either live baits or lures. Northern pike are not surface feeders, although there are exceptions to this rule, as to any other in angling. The "lucky" pike fisherman uses lures that get down into the water, and he arms himself with a variety of lures so he can fish effectively down near the bottom or close to the top of the water or in between. He also knows that lures cast out and retrieved with a steady pace will not often take pike. The lures have to appear alive and frightened.

Probably the most popular pike lures are big spinners, designed for use with casting and spinning outfits. These are available in a wide range of weights and colors, with hooks dressed with a variety of natural and artificial hair. They can be used for either casting or trolling.

Wobbling spoons and sinking plugs with lots of wriggle are also top pike lures. The spoons have built-in flash to catch the attention of the fish, and they also can be made to wobble and dart, change speeds, and even flutter toward the bottom. Spoons "sweetened" with a bit of pork strip, a piece of plastic worm, or a narrow strip of skin from the belly of a perch or big sucker minnow often get more action than an unadorned lure.

Slim, jointed plugs that have a fast wriggling action are also top lures, and those that imitate baby pike are especially effective. Spinnerbaits (lures that look like husky safety pins with lead bodies and a spinner or two suspended from metal shafts angling above the body) are good pike lures. They can be fished at various depths in the water or just under the surface, where the spinners will create a sputtering disturbance.

Sinking, action-packed plugs and heavy spoons can be effective when trolled in deep water over submerged weed beds, shoals, sunken logs and other obstructions. The trolling speed should be just enough to bring out lifelike action in the lure.

Variety of fishing methods is an important key to success in pike angling. The angler must be able to experiment with a variety of lures, to fish shallow or deep, to change speeds on retrieves, to cast into open water as well as into debris cluttered areas and to be willing to fish in the rain as efficiently as in fair weather.

While spinning and casting gear usually are preferred, another change of pace capable of producing real

thrills is to fish for pike with a fly rod. Top lures are big and colorful streamers and bucktails. Rods must be stout and fairly stiff and leaders strong to cast and retrieve such lures and to handle a hooked pike.

Chain pickerel are smaller cousins of the northern pike. They prefer the same habitat and have the same appetites and tastes, if on a reduced scale. Even the little ones are willing and determined fighters. There are some differences, however.

Fly rods or light spinning tackle are excellent for pickerel fishing. Pickerel, being much smaller than northern pike, are regularly caught on artificial lures and on live baits so small that a northern pike would ignore them.

The experienced pickerel fisherman passes up most open water in a lake, pond or stream pool. He concentrates on the outside edges of weed beds and lily pads and on pockets of open water in weedy areas where the pickerel, like their big relatives, the pike, wait for a meal to pass by. And just for the heck of it he will retrieve a weedless spoon over the tops of lily pads and through weeds, knowing that at any moment a pickerel may bust up through the greenery and take the lure.

Pickerel will take almost any lure or bait a bass will attack, even cork bodied bass bugs fished on the surface. Flashy spinners, spinnerbaits and little spoons are excellent pickerel lures, but they should be no heavier than one-half ounce; in fact, the smallest sizes that can be handled with spinning tackle are the best. Fly and spinner combination and colorful streamers are top fly rod lures.

Plastic worms, designed basically for bass fishing, are good pickerel lures. Small, floating worms can be cast over the tops of submerged weeds and into weedy pockets and worked just fast enough to make them wriggle. Worms that float are required for this use, of course.

Small minnows are the No. 1 live bait, with little frogs a close second. The angler who confines himself to night crawlers will seldom be "lucky" enough to catch a pickerel worth keeping for the frying pan.

Walleyes have the same legal fishing season as pike and pickerel in Pennsylvania and have a place in discussion of pike fishing tactics, but they are not members of the pike family and are not properly called "walleyed pike."

Walleyes prefer water, whether in lakes or streams, that has sandy, gravel or rocky bottom, although on occasion they will feed in weedy regions. They are found in areas that have cover and protection as well as good feeding opportunities.

These fish feed much of the time at considerable depths, almost right down on bottom, but they also like to move into shallow water to feed on minnows, frogs and other natural forage under the cover of darkness. At such times, they can even be taken on carefully worked surface lures.

Walleyes usually feed heavily during the opening weeks of the season, just after they have finished spawning, then seem to lose their appetites during the hottest period of the summer, and go on a feeding spree again in the autumn and into winter. In late fall, they are likely to feed just offshore in water of moderate depth.

They are slow and rather deliberate feeders. They do not chase a lure or bait through the water or attack it as viciously as a pike or pickerel would. The first indication a lure angler has of a walleye strike usually is feeling an added weight on the line. The live bait angler knows enough to be patient and allow the fish time to poke at the bait and even nibble on it before taking it into its mouth.

Casting and spinning tackle are ideal for walleye fishing, and the "unlucky" angler who goes after them with a fly rod is overlooking the fact that it is very difficult to manipulate walleye lures or baits in water depths in which the biggest fish are found.

There are some excellent lures for walleye fishing. Jigs that can be bounced slowly over the bottom are rated by many anglers as the very best. Jigs in the half-ounce class are easy for the angler to control and for the walleye to see. The color of the jig dressing is the angler's choice. Those dressed with blue and white artificial hair, with the blue layer atop the white, are good.

Jointed plugs shaped like minnows are walleye attractors. The jointed tail section produces a lively wriggle. These are fished under the surface, either by casting or trolling, but in either case the plug must move slowly, just enough to appear alive, for the walleye is not a lure chaser.

Another excellent lure is a June bug spinner baited with a night crawler or minnow. Sinking plugs that imitate minnows and plugs with a soft wriggle also are good, especially for trolling at just enough speed to bring out the action of the lure, but they must be fished just off the bottom. This can be accomplished by use of a three-way swivel on the end of the trolling line. The line itself is tied to one arm of the swivel. On another arm is a piece of monofilament 18 to 24 inches long to which the lure is attached. On the third arm, suspended on 12 to 18 inches of light monofilament, is a

Good cover means good fishing. It also means the angler fishing it must include weedless terminal tackle in his bag of tricks.



round or egg-shaped sinker. When this combination is trolled the sinker bumps over the bottom, and the lure rides along behind it, just off bottom. The sinker keeps the lure deep, and if it is attached to light monofilament can be broken off without loss of the lure if it gets hung up.

Surface lures will take walleyes at night, when they move into shallow water to feed. But the lures must be worked very slowly and quietly, for the walleye is always on the alert when not protected by deep water.

Minnows, frogs and night crawlers are good live baits for walleyes. And the "lucky" angler experiments until he learns which one the fish prefers, then uses that bait with the knowledge that just casting a baited hook into whatever water happens to be at hand is not going to produce fish consistently.

Instead, he baits the hook, attaches a sinker heavy enough to get it to the bottom, then lowers it into the water. Because the sinker is heavy, he can feel it touch down. Then he reels in a foot or so of line and waits for action. He occasionally moves the bait up and down a short distance in the water and checks it from time to time to make sure it is still alive and active. If he fails to get action within a reasonable time, he will move to deeper or more shallow water, seeking the level at which the fish may be feeding.

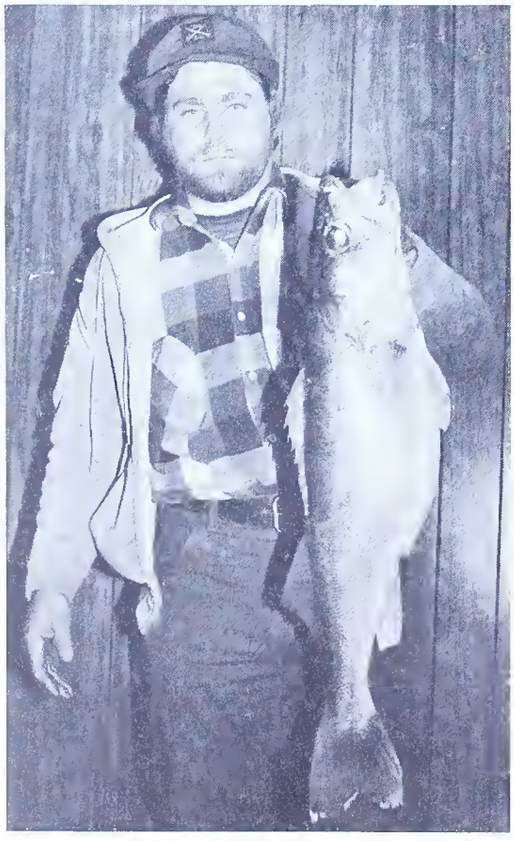


Favorite lures for the toothy threesome dealt with in this article vary with locale. You've undoubtedly got a "killer" in your tackle box.

The first sign of an interested walleye usually is a gentle and slight up and down movement of the rod tip, as the fish checks out the bait. When the rod tip moves down steadily and smoothly, a sign that the walleye has taken the bait into its mouth, the angler sets the hook and brings another nice fish to the net.

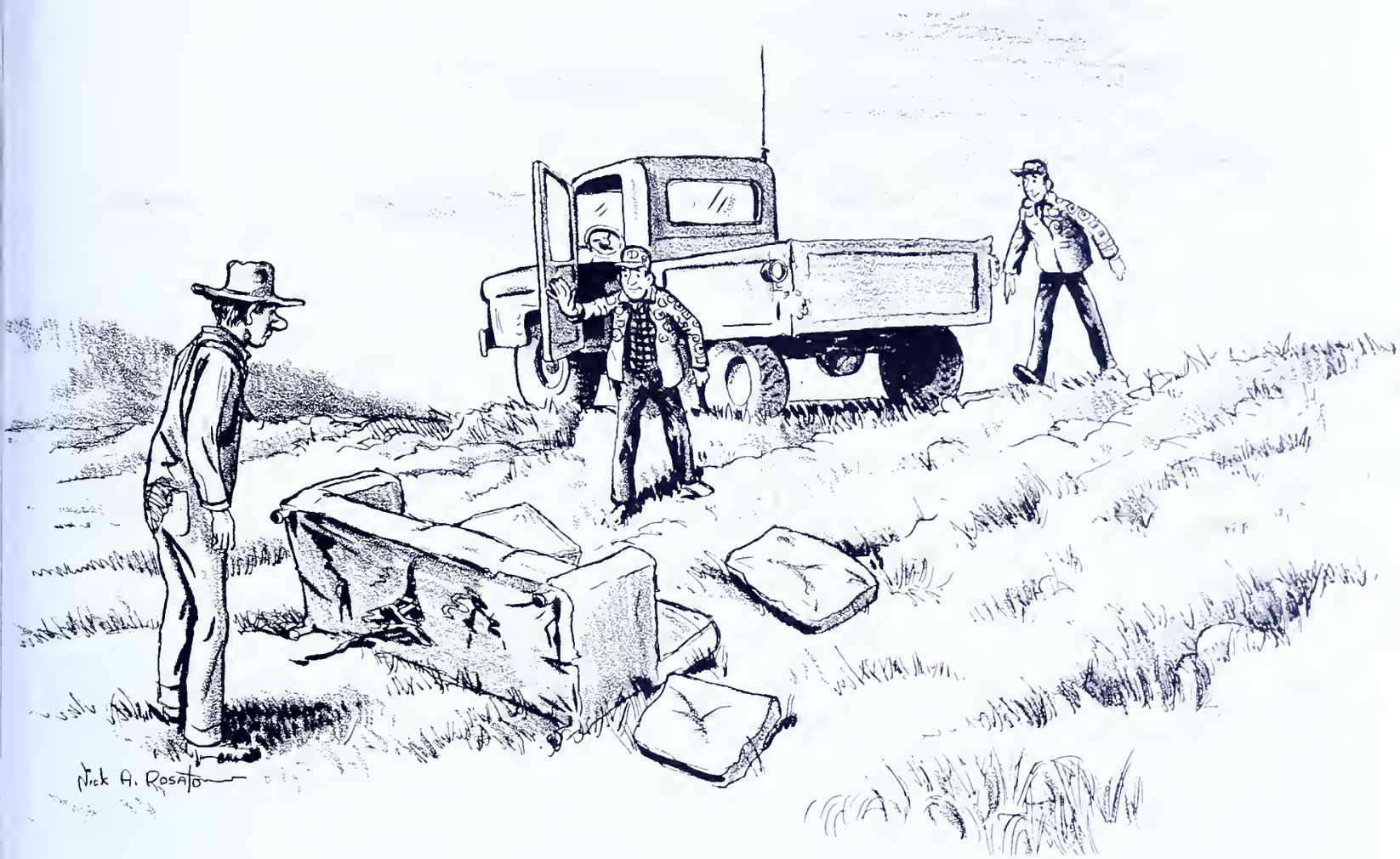
Like the pike and pickerel fisherman, the walleye expert experiments with a variety of lures or baits at a variety of depths and with a variety of methods of retrieves until he begins catching fish.

The walleye angler has a bonus. Walleyes are school fish, and where one is hooked others are sure to be on the prowl. Thus endeth this lesson. Go out now, and work on those pike, pickerel and walleyes.





Ted Fitch, above, took his 30-inch, 10 pound 5 ounce walleye from French Creek on a homemade jig. Frank E. Koterba, Jr., left, caught his 30½-inch, 10 pound 6 ounce walleye at the Youghiogheny Reservoir, using a minnow.



Wearing the Patch

by Geo. L. Harting

The treasurer spread out his wares on the table adjacent to the meeting room's main entrance. His inventory included new membership booklets, enrollment cards, his statistical accounting of the association's financial solvency, and in addition, he displayed a variety of pins, decals, and shoulder patches that identified the wearer with the group.

This was my first meeting with the association. I was being sponsored for membership, a relationship that I had dared to dream about, but one which I thought lay entirely in the area of fantasy rather than fact. It, however, *did happen.*

The lapel pin accompanying the welcoming handshake extended to me by the president was accepted with considerable emotion. The pin was neatly sealed in plastic and shall remain so; I placed it respectfully with other mementos that reflect the plateaus and peaks in one's life process.

It was at the conclusion of the meeting marking my acceptance when I moved to the treasurer's table to secure two shoulder patches; the caliber of the association's membership and the objectives for which it labors make identification with it a twin experience of privilege and responsibility. The return trip home was characterized by considerable concerned reflection. Would I be able to "cut the mustard" membership demanded?

This personal experience can be duplicated to incorporate all kinds of identities: badges, decals, rings, or patches, all establish our relationship with varied and numberless incorporated bodies operating wherever a community of people reside. The impact of membership, however, forces into bold relief the broad implications of *"Wearing the Patch."*

It is reported that almost a thousand federated clubs catering to outdoor interests are operating in the state of Pennsylvania. Surely there are many additional independent outdoor oriented groups operating within the Commonwealth. Each has its objectives, its projects, its constitution and bylaws which identify its reasons for existing; each has its identifying logo — the patch that its members wear. The participants have the responsibility to represent favorably the organization to which they belong. In turn, the fraternity represented by the patch has the challenging obligation to set the pace for its individual members. This kind of cooperation is a key to our meaningful participation in wildlife management.

the strength in unity

Our generation can accurately be categorized as the heyday for mergers, unions, and the forming of conglomerates. Survival today is certainly not identified with isolation. The small town bank in my hometown appears much as it did fifty years ago when it was built. The school kids watched with fascination as a frame home and its contents were rolled to a new foundation to make way for the bank's construction. There is a major change, however, the old familiar sign and name are new and echo a strange sound. The local directors are gone, and so is the personalized relationship between lender and those who borrowed.

Such change signals the demise of the small independent institution; the determination to survive demands a merger. Independent isolation is equated so often with liquidation and it applies to all areas of human involvement. It spans the gamut of such diverse interests as agriculture to banking; even religion invented ecumenism to find the strength that lies in unity.

The complex nature of a shrinking world and the pressures of an affluent and multiplying population demand of us with outdoor orientation the supporting role incorporation offers. To organize is not an option for outdoors people. The unity that exists among us in Pennsylvania is hardly a luxury; it is, instead, our basis for survival.

Fifty years ago we packed a lunch, moved up one valley until noon and then returned home moving down the next one until evening. Such freedom no longer exists. Open land where outdoor sports may be enjoyed is scarce. Pressure politics, the inroads of the developer and industry, the selfish aspects of land use, the increasing popularity of outdoor recreation which each year puts more hunters afield and fishermen on the streams, and the persistent pressures of the "anti's" affirms for the perceptive participant that we cannot stand alone. The strength of organization must become our priority; we must be willing to wear the patch.

the patch is laundered

Garments frequently bear a tag to detail washing instructions. The detergents, we are told, possess such dramatic cleansing power that, if used, our clothing will be restored like new. What a comparison is here for our outdoor sports organizations! Each of us can play a role in that laundering process.

The mobile nature of our economy dictates that families move frequently. Few people these days spend a lifetime where they were born. This suggests that Pennsylvanians will have frequent "in and out" experiences with society's institutions, and the traditional Rod and Gun Club is among them. My own experience to date has prompted membership in four such organizations. Because absentee membership is of little benefit to either the member or the organization, upon moving my resignations were prompt. But, being persuaded that sports people must fraternize, I have always undertaken immediately a search for similar membership in my new community.

To belong must imply *participation;* it must mean more than an available rifle range, or a bluegill pond for the kids. Membership must be a blood and guts proposition. He who enjoys the privilege of belonging is a parasite if he shuns its responsibilities. There are wood duck boxes to build, browse to cut, streams to be improved, the meeting hall to be maintained, public relations to be fostered.

Perhaps even more important may be the fact that some new legislation and guidelines need to be written to furnish for the organization a stronger and more acceptable public image. The world is full of "willing" people, we are told, those who are willing to do the work and those who are willing to let others do it.

Let the patch you wear represent an organization with a laundered look, but be sure you had a part in the process.

to shed the identity

Those of us who serve the volunteer community organizations have a continual experience with the transients. They represent that segment of our population which always finds the grass greener elsewhere. They find any number of reasons, actual or alleged, why they should renounce their associations and take up organizational residence elsewhere. It is fortunate, indeed, that they constitute a minority representation. There are, however, extenuating circumstances to justify breaking one's identity and shedding the patch. Let's use the youthful diversion of pretend to serve our point.

A sporting club determines that it should sponsor a junior organization. The plan is adopted and the young members are enrolled and they participate. Now it occurs to some that pornographic entertainment might satiate the passions of the oldsters. The resources are rented and available for the showing, but some alert soul remembers the juniors are on hand. The solution? The teenagers are dismissed to play solitaire in the next room while the oldsters revel in the sex orgy and no amount of protest by the discreet membership accomplishes a reform.

Let another hypothesis be established: the affluence of the organization adds acre to acre for the club grounds. Luxury is added to extravagance until the facilities hobble the membership in an endless round of management and finance. The result is that interest in wildlife management, in legislative initiative, and in public relations are sacrificed on the altar of affluence.

"Extreme," one may insist, and the resounding answer must be, "Not at all!" The "pretend" too often becomes the *real.* Ours is a time when the public image of those who hunt and fish needs to be improved; it is a time when fish and wildlife need an assist. When our organizational style represents a case of the tail wagging the dog there is ample justification to break one's identity and to shed the patch.

a new design

Those folks among us who are motivated by the world of nature represent a sharing and caring community. If, on the one hand, they find an organizational incompetency where they reside and shed the patch, they will create a new design. They will not exist in an isolated vacuum. There is always the freedom to dream dreams and the incentive to convert them into reality. A new design may be in order.

I was fishing a favorite stream and had reached a promising eddy just below the farmer's bridge. As the minnow passed his rock, a very acceptable brownie took it and sent the line

singing across the current. I set the hook then heard the farmer, my generous host for the day, share his weekend trauma with his neighbor. "They litter the meadow, burn you out. . . ." His meadow had been burned the day before. "They poach the fish from my private pond. I'm going to have to close my land." What an opportunity for an organization to create a patch with a new design!

I have been challenged to imagine what could be accomplished by an organization dedicated to improve relations between outdoor oriented people and growers. I picture a group of committed persons, unencumbered by extensive property ownership. They might conduct their meeting and devour their cheese and pretzels in the members' basements. Their resource, however, would be a sensitive awareness of the farmer's needs; the generous host upon whom we are dependent for available hunting and fishing acreage.

This sensitivity should foster a year-round response, not one simply concentrated to the week before the opener. To request the privilege to hunt just an hour before the opening of the season when the grower is struggling with a stalled cornpicker will be unproductive; he may well tell you where to go to hunt. But to respond to a farmer in crisis may yield better dividends. To help hustle in a load of hay before the downpour might be very productive in gaining trespass privileges. These are personal observations from having been on the farmer's end of the arrangement for a quarter century.

If the farmer's black cow has been shot by a scoundrel, should he sustain the total loss? If a junk sofa is dumped on his field, would it not be a sporting gesture to relieve him of the encumbrance? If his cattle have gone maverick, would it not be benevolent to give him an assist?

There are still other areas of concern. It was an embarrassment, for example, to learn from the local outdoor editor that the only community activity scheduled for our area on National Hunting and Fishing Day was a Father-Son night conducted by a church group. A new design may be imperative!

Creativity and enthusiasm are commodities in short supply, particularly as they relate to such volunteer organizations as Rod and Gun Clubs. This is an unfortunate commentary, for our times place both the clubs and the commodities in a position of top priority. When the patch is worn, let it be representative of a viable relationship.



The Clinton County Federation of Sportsmen recently dedicated a memorial erected in remembrance of the late Lloyd Wilson who served the county for nearly 25 years. It stands at the entrance to the Laurelly Fork Trout Nursery, along the Right Branch of Young Woman's Creek. Shown above at the dedication along with Mrs. Doris Wilson are, left to right, R. L. Myers, H. Snodgrass, D. Snodgrass, & D. Reinhold from various Clinton County Sportsmen's Associations.

Shade Gap Area Sportsmen's Association

A Cooperative Nursery with purpose: better angling; better anglers

by Bill Porter
photos by the author



". . . the idea is to provide the youngsters with some good fishing for an extended period of time without all the hoopla of prizes, huge feeds and all the ballyhoo that accompany these events elsewhere . . . ."



The Shade Gap Area Sportsmen's Association, Huntingdon County, is another Southcentral Region club with a successful cooperative nursery of about six years' standing. The 105-foot raceway is located near the village of Shade Gap on the farm of Harvey Mills, a very congenial and helpful landowner. The Shade Gap nursery is one of three active cooperatives in Huntingdon County for the 1979 season. The story doesn't stop here, for the Shade Gap Sportsmen have added some significant contributions to the cooperative nursery program that deserve airing.

First in order might be the details of the layout. The raceway consists of 105 feet of cement block construction, divided into five compartments. This may be rather routine, but there is room for expansion that was considered carefully in the original planning. A pullout drain part way down the one side of the raceway permits cleaning of upper sections without causing problems for trout in the lower pens and vice versa. This latter device is a useful one for raceways that are of continuous sluice design.

Other physical features, associated with water control, include a distribution box, underground pipes from the dam through to the raceway, and the impoundment at the upper end of the project. Taking them in the order of water flow, the dam backs up a sufficient head of water from Mill's Run, a local name, to operate the facility. However, some siltation problems above the dam and some erosion concerns below it make this a problem area, scheduled for improvement through late 1978 and into 1979 as needed. The nursery crew recognized the problem and have planned for the needed corrections.

Below the dam is a very efficient collecting box and dispersal system. Cement block construction, including keyways for debris catching screens, the unit controls and passes the water through two underground pipes to the raceway. The intake system is capped with sturdy screens and a lock. No problems here, none expected in the immediate future.

Well down the right side of the nursery, an attractive metal storage shed protects the food and equipment needed for the facility. To the front of







Shade Gap uses dam, above, to impound water for intake system. This is scheduled for improvements. Intake, above right, is screened on top and sides to reduce debris problems. View of raceway, right, shows nursery to be neat and functional.

this structure reposes the stocking tank, produced by the members. The steel unit fits perfectly into the bed of a pickup truck and has a "minnow saver" aerator system, designed to work from the truck's cigarette lighter. Both of these units are quite functional and serve the club well as this point in its history.

Now some references have been made to club members and hatchery personnel in a vague way — it is time for some specifics. To the uninitiated, the operation seems to be a family affair, which really isn't true. However, there are a whole group of Price folks involved that would seem to lend credence to the idea. For example, Joe Price, current nursery manager, and his sons, Richard and Bill, were on hand at the time of our visit. By the way, Richard was the club's vice president and Bill was one of the regular feeders. Lombard Lightner served as club president and additional members pulled their weight as needed with the nursery's operation, stocking and children's fish derby.

And speaking of the derby, the Shade Gap Sportsmen have an interesting arrangement and philosophy for its operation. Initially, the idea is to provide the youngsters with some good fishing for an extended period of time without the hoopla of prizes, huge feeds and all the ballyhoo that accompany some of these events elsewhere — not to say that others are wrong.

In any event, the Shade Gap club stocks a portion of the Nine Mile stream, flowing through a farm owned by a local doctor, another very cooperative landowner. The fishing begins at a scheduled time, but there seems to be no mad rush but rather a steady flow of young fishermen to the stream. Parents and club members share the duties and acceptable assistance to the youngsters as needed. Catches are recorded and it all seems to be a nice smooth fishing experience for the youngsters of the region. Some modest refreshments are available free to the young anglers the first day and, on occasion, a few silver dollars may be sprinkled out for large fish; but the emphasis is on several days of fishing *fun* and *ethics*. Just maybe the club's purpose will produce some fine adult sport anglers for the future.

Beyond the editorializing, there are some more basics of the Shade Gap nursery operation that should be considered in summary. Rainbow trout are the prominent species raised. Browns had been, but some problems with those trout turned the nursery crew back onto the rainbows as the prime product. The fish are fed a pellet diet with no venison, similar to the feeding pattern of the Saltilo Sportsmen, a neighboring Huntingdon County cooperative nursery.

Approximately 6,000 trout are stocked each year with scheduled plantings beginning pre-season and extending into June. Streams stocked include: Nine Mile, mentioned above, Shade Creek, and Lockes Valley as the major streams receiving Shade Gap fish.

There is no question that the Shade Gap Sportsmen have a working, contributing nursery that will continue to add trout to and better trout fishing for their section of Huntingdon County for years to come.

Gifts for the Angler

by Frank Lucas

Probably no one group of sportsmen presents as big a problem when it comes to buying that Christmas gift as that special breed known as anglers. They come in all sizes, weights, colors, autos, boats, and dress, and are dedicated, enslaved, and bondaged to the same urge: to enjoy every minute of every hour of every day beside a stream, lake, or bay. By nature they are individualistic and opinionated when it comes to their likes and dislikes. Some are dedicated to taking trout with tiny flies and want nothing to do with other methods. The spinning enthusiast can be just as particular, scorning live bait and heavy rods loaded with thick, ropelike line, preferring to take his fish with artificial lures on tiny rods and threadlike line. But the majority of Penn's anglers just like to fish and will use any and all methods to catch a mess of fish, not caring whether they are trout, bass, or sunfish — Just that they *are fish*.

An angler's saving grace (from the gift-buying point of view) is the fact that no matter how much tackle they own, they can always use more. Most have far more rods, reels, and lures than they can ever hope to use, but are always alert for something new . . . always looking for that special rod or lure that will make them more successful — hopefully!

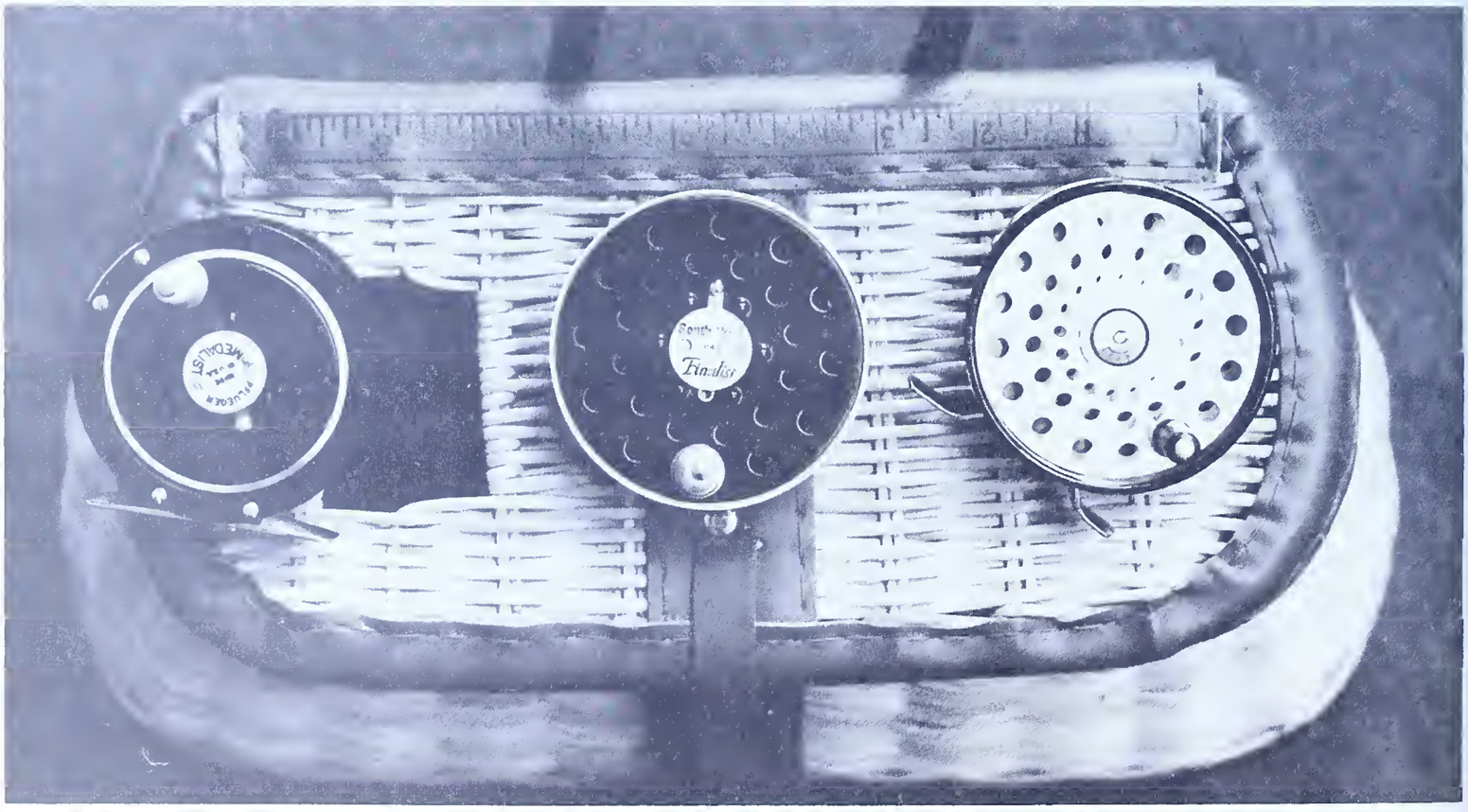
With the Christmas buying season arriving a little bit earlier each year, there is ample time to think about and look for that special gift for the angler or anglers in the family.

If the big chain-type discount store is where most of your shopping is normally done you may be disappointed trying to buy fishing tackle at this time of year. Fishing tackle, for the most part, has been replaced by hunting equipment as the big chains gear their displays for selling on a seasonal basis and hunting season is in full swing. Granted, the chains have lower prices than the local tackle store, but if they don't have what you are looking for — when you're looking for it — then the lower prices don't mean much.

Chain stores are also not the best place to go seeking advice on what to get in the way of a gift. You must know exactly what you are looking for as, more often than not, your questions will be answered with "Sorry, this is not my department." or "I'm sorry, but I'm not a fisherman." The local store that specializes in fishing tackle is a better bet. The owner and employees will more than likely be fishermen, and can offer advice on what to buy in the way of a gift. Since fishing tackle makes up the bulk of their inventory the selection will still be good at this time of year. Prices will undoubtedly be somewhat higher as the owner won't be able to buy in large volumes like the chains, but the higher prices are often offset by superior service and a real effort to see that your purchase is the right one. I know that the owner of the tackle shop where I while away most of my time adheres to this philosophy.

Gifts purchased as stocking stuffers

Decisions, decisions! If you can't decide what to give that angler friend, there's always a Gift Certificate.



are usually small and inexpensive but this doesn't mean they aren't appreciated. Sometimes the right small gift is treasured more than a larger and more expensive one. For $5.00 or less there are many choices. Some suggestions might be a small fly or lure box, fishing pliers, surgical forceps, an angler's line clipper, a spool of line or perhaps an extra spool for the spinning reel. Fishing patches for the hat or jacket and belt buckles that are embossed with a favorite fish are popular. Most anglers could put a small flashlight to good use. If the angler is interested in photography I'm sure a couple of rolls of film would be welcome.

To stimulate an interest in fishing nothing beats a good book. Good ones are available on flies, fly tying, lure making, trout, bass, and other fish as well as how to get started, how to catch more fish, and once you've caught them, how to cook them. No matter what the interest there's a book on the subject.

One of the prepackaged rod and reel sets would make an ideal gift for the beginner. Most combopacks are moderately priced and offer good value for the money. The rod and reel are by no means the best on the market, but are more than adequate for the novice. This is a good way to start the kids off without spending a lot of money. Prices for the better sets will run between $15 and $25.

For the "do-it-yourselfer," fly tying kits, jig making kits, and spinner making kits are available. The kits include all the needed materials and provide a source of economical lures, as well as adding hours of enjoyment to the fishing hobby. What better way to spend a cold winter's day than by assembling some lures and dreaming of catching that lunker on one of your creations? Prices on fly tying kits vary from $6 to $50. Jig making kits run around $10 and spinner making kits vary from $10 to $25.

Molds for making jigs, spinnerbaits, and sinkers are also available. Depending on the quality of the mold selected prices can run from $5 to $15.

Nothing speeds up the job of cleaning fish like a good knife. Trying to clean a fish with a knife unsuited for the job is an exercise in futility. With all the good quality knives on the market there's no reason not to have one. Prices can range from as little as $5 to $40 or more.

A knife is useful only as long as it's sharp. Kits containing Arkansas whetstones, honing oil and instructions are available. Prices run from $10 to $20.

I can't think of anything that delights an angler more than a new tackle box. There's something about an empty one that makes them lightheaded as they anticipate filling it with goodies. Tackle box prices range from about $6 for a small one to around $35 for one with jumbo proportions and suitable for carrying around a small store.

A new rod is always a suitable gift, but it might be better if the angler made the selection since a rod is such a personal thing. Kind of takes the surprise out of the gift, but guarantees that it will be the right one. Prices can vary dramatically depending on what the rod is made of — fiberglass, graphite, boron, or bamboo and whether or not it's factory made or custom-made. The custom-made rod is usually the most expensive, but there's a certain sense of pride in owning one. This might be a good selection for a truly dedicated angler . . . if you can afford it.

Reels are like rods in that the choice is usually very personal and the price differential between models and styles can be great. Let the angler also make his own choice here, unless you are absolutely sure of what to buy.

One of the best choices that could be made if you are undecided on what to buy would be a gift certificate. Most tackle stores offer them and they can be redeemed for merchandise of the angler's choice.

Don't overlook the mail-order field as a gift source. Most catalog stores also offer gift certificates. I'm a catalog "freak" and my wife always lets me pick out several items and then she will make the order. I never know if she ordered everything I chose until I open the package on Christmas day. The surprise remains and the gifts are always things I really want.

I've covered a few items that might appeal to the fishing enthusiast and hope it will make the job of picking a gift a little easier. Even if you don't fish don't be afraid to buy for those who do. It will be worth the time and effort when you see that look of pleasure on your angler's face as he opens that special Christmas gift.

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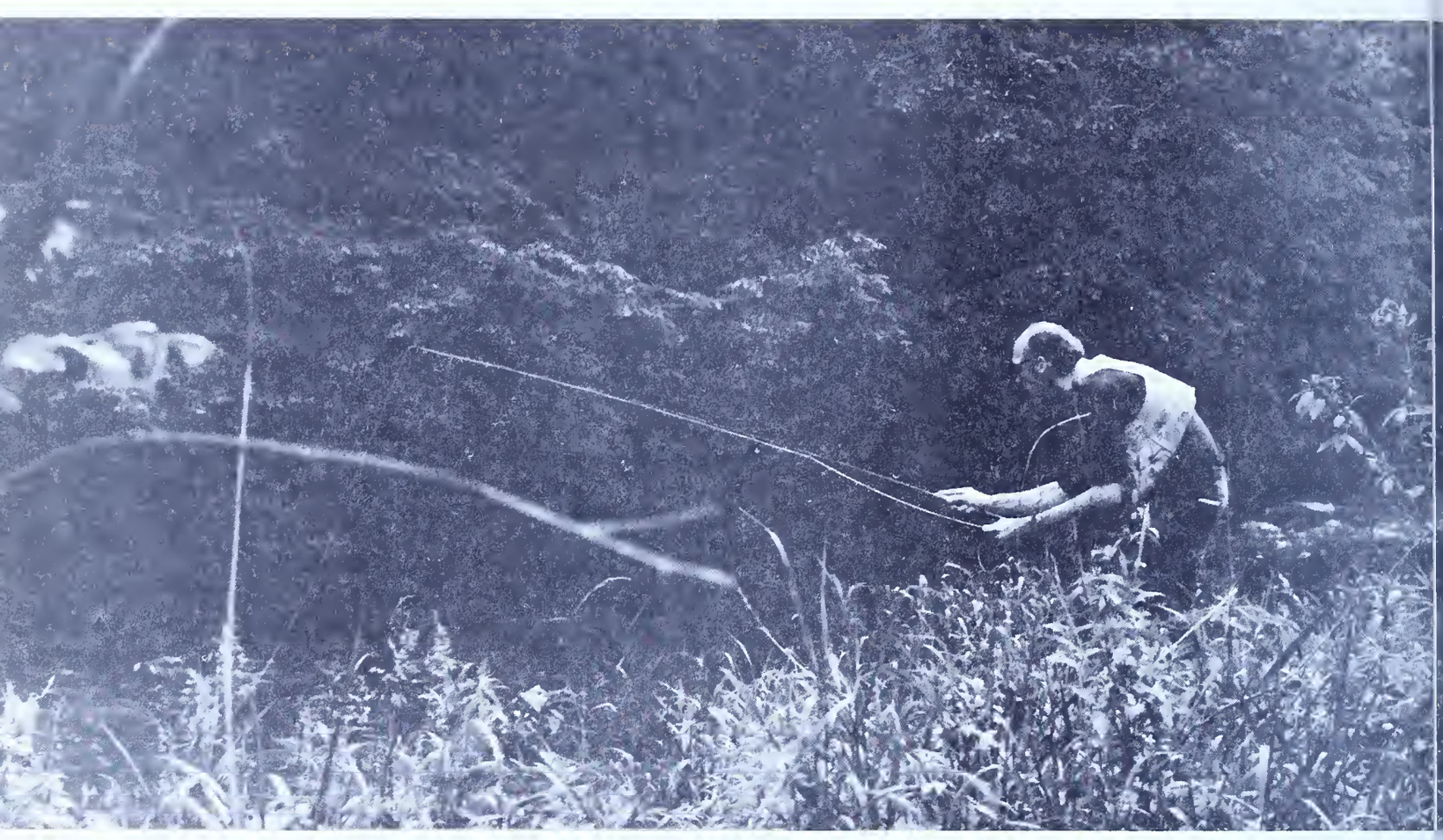
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The "Gentleman from Wyoming," Senator Alan K. Simpson, above, guest of Pennsylvania's own Senator H. John Heinz, below, "adapted to the new environment rather quickly," says the author.



Of Senators & Shad Flies

by Chumleigh Pilchard

photos by Russell Gettig

To many flyfishers the high point of each angling season is the green drake hatch. The green drake, or "shad fly" as it is called in much of central and southcentral Pennsylvania, is a large fly and provides the flyfisher with one of the best chances to catch a truly big trout on a dry fly. Much has been written about the shad fly hatch and there's no doubt that it truly is one of the most impressive and exciting events of the angling year. The message "Shad flies are on Penns Creek!" (or any of a number of other Pennsylvania streams) is all it takes to bring anglers out in large numbers.

Fishing during the shad fly hatch can indeed be exciting and rewarding, but just as often it can be challenging, frustrating, or even disappointing. Many of us who "follow the hatches" have spent just as much time watching the big yellow-green flies emerge from rain-swollen streams (the color of coffee with cream) where no fish were rising as we have fishing the shad fly hatch. Strangely, though we've all experienced poor days or bad weather during the shad fly hatch, that's not the part we remember. We tend to remember (and talk about) only those times when good weather, hungry trout, clear streams, and shad flies all came at the same time and fishing was great.

Late this spring two distinguished members of the United States Senate had the good fortune to encounter one of those most-remembered days. The combination of Senators and shad flies was a most pleasant experience for all involved (with the possible exception of a number of brown trout who may have been happier if they hadn't been caught).

In early June, Pennsylvania's own Senator H. John Heinz brought a friend, Senator Alan K. Simpson of Wyoming, to central Pennsylvania to fish for wild brown trout in a limestone stream. As almost all fishermen know, Wyoming is a state rich in beautiful trout streams, so the Senator from Wyoming was no slouch when it came to handling a fly rod; still he was a bit out of his element since he had no experience with limestone streams or shad flies. Senator Simpson adapted to the new environment rather quickly and soon was fishing with all the stealth typical of a veteran limestoner. (And when you're 6′7″ it's tough to be inconspicuous!)

As it worked out, Senator Heinz couldn't have had better conditions for introducing the gentleman from Wyoming to Pennsylvania trout fishing. The Senator's luck was all good: stream conditions were superb, the weather was great, the shad flies were on schedule, and the trout were rising. This was one of those trips fishermen hold in fond memory. Senator Simpson had a first-rate introduction to Eastern trout fishing, Pennsylvania style.

You don't have to be a Senator to enjoy the "shad fly" hatch. This large mayfly emerges in late May or early June in a number of Pennsylvania streams. Anyone who is interested in fly fishing should make an effort to determine which of their favorite streams support a hatch of *Ephemera guttulata* — the beast we anglers call "shad fly" or green drake. Perhaps you, too, will hit everything right on your first trip. If you do, you'll understand why many of us get excited when we hear "the shad flies are on!"

The author could not resist sampling a bit of the day's fishing activity.



"Wings" Over Penns Creek

by Clayton L. Peters

Mark the year 1979 as one of the best *Ephemera guttulata,* or green drake hatches on Penns Creek in several decades. Prior to the heavy emergence of the long awaited event, we had spent the week of May 21 to 26 at our camp at Paddy's Mountain and heavy rains swelled the creek to flood stage. Fishing was impossible so, with diminishing hopes for favorable conditions, we returned home. Then, on May 29 Greg Hoover from Berrysburg called to inform us that the big drakes were beginning to appear. It didn't take us long to pack up and retrace our 83-mile journey from my home to camp.

Sure enough, the creek was rapidly receding and a few duns were emerging. We spent the greater part of that day evaluating the situation and gathering a few specimens.

The Ramsey brothers, Clyde, Bill, and Marlin, were at Lykens Valley camp for a full month and they had glowing accounts of all the various hatches of flies which occurred during their stay.

The fly tiers at their camp were busy trying to closely copy the natural specimens, but in some instances they lacked the correct material for exact copies. One of the most inspiring episodes was born that night at the fly tying table. Glenn Barder tied a fly using cellulose packaging material for the wings. "Bushy" Ramsey directed the tying and materials to be used and the result was a gruesome looking spent wing affair that nobody wanted. So, Glenn reluctantly put it in his fly box with the applause from the gallery.

You may have guessed it: the following evening he took trout on it till it was torn beyond recognition. That night one was tied and placed on a plaque on the wall with the inscription, "Bushy's Stepchild." Just another version of the already long list of dressings for the green drake. Enough copies were tied to supply the gang and would you believe it, you never saw a more frustrated bunch of fishermen. The trout simply ignored them. Prior to the advent of the big drakes, for three evenings there were five different flies on the water simultaneously: light cahills, march browns, slate drakes, green caddis and the small sulphurs. The light cahills were predominant, but the trout passed up the larger flies, prefering the tiny sulphurs. A quick change to a size 16 sulphur brought the eager trout up to investigate and seize it.

I had made my fraudulent copies of the green drake immediately after the 1979 season when the coloration and certain other aspects of the fly were fresh in my mind. This procedure is as it should be, not wait until the last minute when haste and lack of meterial produce failure.

On June 3 the big drakes started popping off the water prodigiously. We watched Greg Hoover, the young biologist, catch and release four trout in flat water at 8:30 in the morning. He then stopped fishing, although trout were still rising, to show us the metamorphosis of the dun to the spinner. On a leaf in the palm of my hand we watched the sub-imago wiggle and squirm out of its shuck to become the beautiful glassy winged imago or spinner.

The day before, he had taken trout after trout on his version of the green drake nymph.

All the writers with whom I have spoken, or read in their publications, have discretely steered clear of discussions of the nymphs. Not so with Greg. He has taken many samples and devised a very lifelike duplication that takes trout consistently.

That same evening, June 3, my son and I fished the same flat water. Flotillas of drakes rafted down the stream and I'm not sure which were the most frantic, we or the trout. The fish rose without rhythm and often engulfed a fly inches from our offerings, but occasionally they misjudged and we were fast to a scrappy bundle of TNT. This lasted until well after dark when we could no longer see what was happening, but the slapping sounds continued as we left the stream. The Lykens Valley camp gang had equal success on another part of the stream.

On June 4 the spinner fall occurred in the "Fish-For-Fun" area and both spinner flies and spent wing patterns took trout, if one had good replicas and the fortitude to wade the still high murky water. That cloudy water was the key factor that made the trout easier to convince.

This was a very successful year for the green drake fraternity but it is going to be interesting to see what happens next year after that spraying over the creek for gypsy moth in 1978. Thousands of flies were killed by the spray before the fertilized eggs could be disposed of. Next year's cycle may be very sparse in the sprayed section of the creek.

All the time the big drake hatch was in progress, the smaller flies, the little sulphur and the slate drake were present — but more sporadically and the trout were not interested. Later they returned to more basic food and the slate drakes and green caddis took some fish but that once-a-year smorgasbord had them well fed for a week.

Observations

The light cahill wet fly will take trout during the afternoon, probably in mistake for green drake nymphs. The dry cahill is of little value, but the tiny sulphur fly is a must just prior to the green drake emergence, and some times they prefer it — even though a few drake duns are on the water.

Check the water. If it is a bit high and cloudy your imitation, though not perfect, is likely to be effective. And don't forget to change to the spent spinner right after the fly "swarms," as they say along Penns Creek. This is the mating ritual, and the flies drop, dying onto the stream after fertilization of the eggs.

Cloudy weather often induces the

nymphs to rise more frequently during the daytime. This is the time to use the full-fledged nymph, or "flymph," as Vernon Hidy calls it.

I have seen many versions of *Ephemera guttulata* — some very good; some even ridiculous. Many are tied too large. The larger the fly the less chance of deception, and the natural fly is large enough to make deception difficult. I feel that Glenn Barder and I, after a lot of study, have come up with the ultimate fly in both the dun and the spinner patterns.

Here is the dressing. Tie some yourself, and next year you will be in business.

DUN

Hook — *#8 — 3 x long*
Thread — *Pale yellow*
Tails — *Brown woodchuck tail (long)*
Wings — *Mallard flank dyed greenish yellow*
Body — *Ocherish cream*
Hackle — *Light grizzly dyed pale yellow*

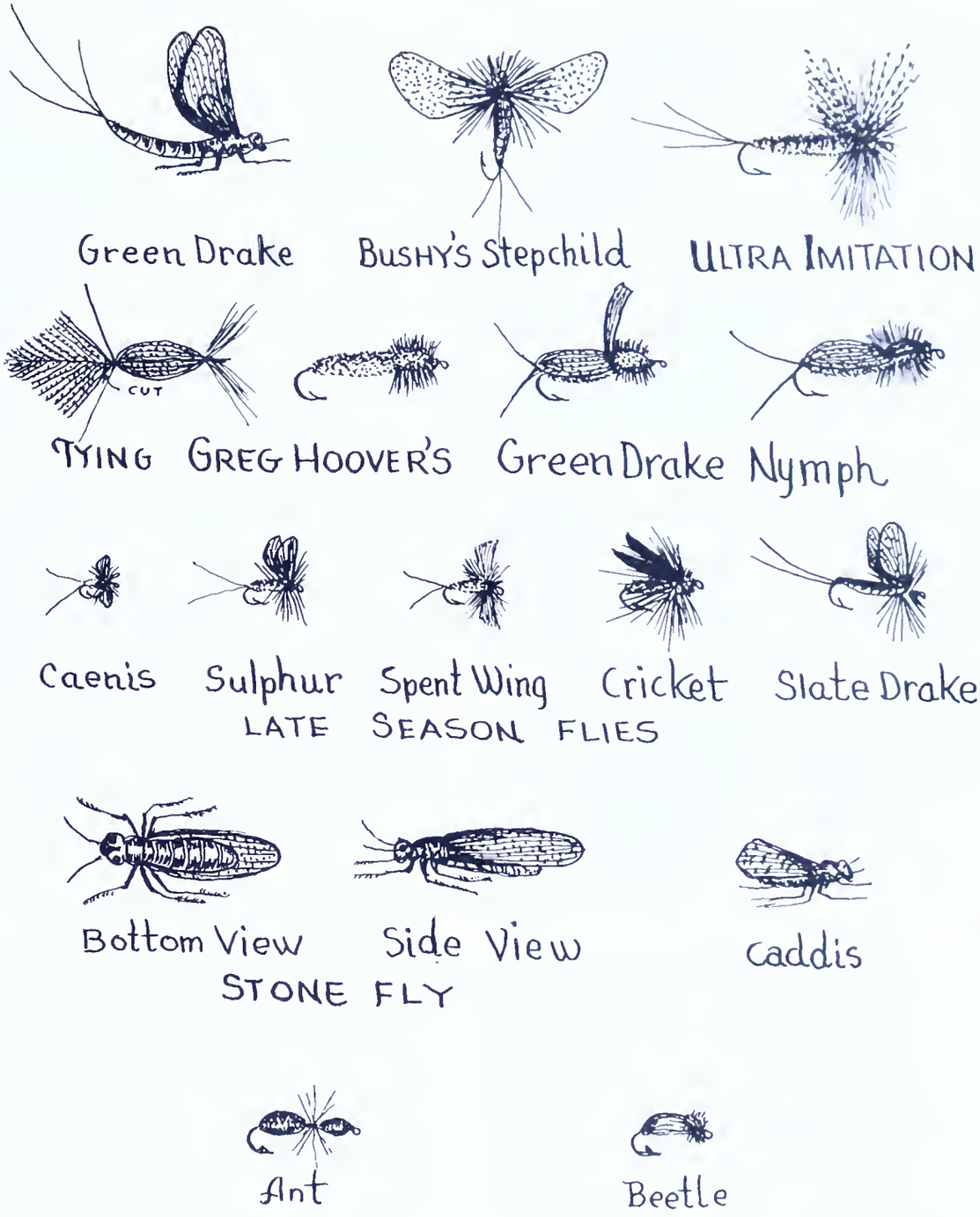
SPINNER

Hook — *8 — 3 x long*
Thread — *Pale yellow*
Tails — *Long black bear hair*
Wings — *Palest Mallard flank*
Body — *White polypropylene*
Hackle — *1. Narrow black hackle*
2. Light grizzly dyed pale yellow

They served us well this past season and we are sure it is the best pattern we have seen. Fan wings, cut wings, etc., look pretty but they are an abomination since they twist the leader and do all sorts of gyrations as you try to cast them. Extended bodies are also for the showcase. They cause too many missed strikes.

Greg Hoover's green drake nymph, and credit for this one must go to him, is a beautiful and lifelike imitation that the trout fall for. The dressing is as follows.

Tails — *Mallard wisps*
Body — *Grayish tan*
Overlay — *Mallard drawn back and tied in at thorax*
Thorax — *Grayish tan fur picked out and trimmed*
Wing Case — *Six pheasant tail fibers*



Prepare the body overlay by selecting a straight Mallard flank feather, and pulling the fibers back along the stem and tie in over the body back of the thorax as shown in the illustration. Notice that two fibers are left to extend back for tails. The heavier furred thorax is then tied in and picked out of the sides and the wing case is pulled front over it (sic). *(Editor's note: Is that Pennsylvania Dutch, still? It just wondered me once!)*

Don't think that fly fishing on Penns Creek is over after the green drake episode is over. Last year I saw Clyde Ramsey of our group of anglers catch and release fourteen trout on a white miller fly on July 5. This fly is as consistent as the June hatches and trout feed greedily on them. It isn't necessary to tie a fancy fly to imitate it. A white bivisible fly will do the job nicely.

The last of the three slate drake flies are in evidence sporadically even into September. This *I. harperi* fly is well imitated by the slate drake and is readily fed on by the trout, probably because of the absence of other flies.

Several caddis flies also are on the water during late July and August. The trout are eager to pick up most surface insects at this time of year in preparation for a long winter ahead.

The Baetis Nymphs

by Chauncy K. Lively

photos by the author

In the fly boxes of many veteran nymph fishermen of my acquaintance, relatively large nymph patterns occupy most of the space. Often used as "searchers" and drifted along the stream bottom in heavy water when trout are not actively feeding, the big nymphs are often attractive to large trout when smaller forms go unnoticed. Mainly they represent the larvae of large mayfly and stone fly species as well as those of dragonflies and damselflies. Because they are highly visible, large nymphs are also effective in off-color water following heavy rains. But at appropriate times — and given favorable water conditions — nymphs of the little mayflies have their innings too.

Referred to as "the many brooded mayflies," the numerous species of *Baetis* are found in trout water all over the world. These diminutive *Ephemeropterans* are well-represented in Pennsylvania's trout streams, where they are apt to emerge at various times from April through October. Characteristically, the duns have olive bodies and generally dark gray wings. Eastern species have two tails which are pale in coloration, as are the legs. The hind wings are short and straplike, sometimes difficult to discern without a magnifying lens.

Baetis nymphs frequenting Pennsylvania's trout streams are slim and streamlined, lacking the flat appearance of *Stenonema* and *Ephemerella* nymphs, and the thorax is shorter in relation to overall length. Their coloration ranges from greenish-olive to brownish-olive and they are generally about 5mm to 7mm long, translating into hook sizes of #16 through #20. They like water of moderately fast flow and are found in gravel, in detritus between larger stones and in aquatic vegetation. J.R. Harris, the eminent Irish entomologist, has observed *Baetis* nymphs "grazing like sheep" on the algae found on the stems of water plants, pausing now and then to chew a particularly large mouthful.

Baetis nymphs are agile swimmers which dart to and fro in short spurts. On emergence they sometimes experience difficulty breaking through the surface film and travel considerable distances, alternately swimming to the surface and resting as the current carries them along, until they finally penetrate the film and emerge. Obviously, trout find easy pickings in the emergent nymphs and they frequently make the most of the opportunity. It all makes for an interesting angling experience but it can also be perplexing to the uninitiated because when trout take the little nymphs just below the surface they often make a visible ring, similar to the rise form created when they feed on drifting duns. Then there are times when the nymphs are taken from the resting positions of the trout without surface disturbance.

If there were a stream in Pennsylvania where I'd be tempted to bet my favorite fishing hat that trout would be rising on a given day it would be Falling Springs, the little limestone gem near Chambersburg. But, proving that nothing is absolutely certain, there have been times when such a bet would have rendered my balding pate hatless.

It was in late May and we were at Falling Springs for the sulphur hatch. The day was dark and overcast and the duns began to appear early in the afternoon. As an added bonus, little *Baetis* duns emerged with the sulphurs, a fascinating coincidence because individual trout often feed selectively on one or the other. But on this day the usually reliable surface feeders of Falling Springs were not rising.

Keeping a discreet distance from the water's edge, we walked the length of a meadow and found nary a riser. Finally, I spotted a good trout lying in an indentation in the gravel bottom, turning its head from side to side and occasionally tilting upward an inch or so, obviously taking drifting nymphs at his leisure. Crouching in the tall grass, I bent on a size #18 greenish-olive *Baetis* nymph and made my cast well above the fish. I couldn't see the nymph in the water but when I had estimated it had drifted to the trout's position he tipped upward, opened his mouth and I tightened. He proved to be a golden-yellow brown of sixteen inches and when I dislodged the hook to release him I could see two freshly taken olive nymphs in his throat.

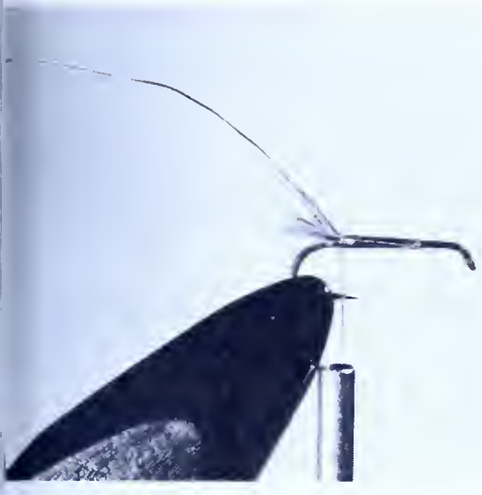
We didn't find many trout lying in the open like the first but we fished the little nymph in the glides and through obvious lies, taking trout after trout. In the evening the trout finally began to rise, but what might have been a dull afternoon had been transformed into several highly productive hours, thanks to the little olive nymphs.

The Baetis Nymph pattern, with modifications in size and coloration, covers a broad range of species found in the eastern U.S. Because the trout often take the naturals just under the surface I prefer to dress the pattern on unweighted hooks of regular length. Good choices are Mustad's #94840 (down-eye) for the larger sizes and the up-eye #94842 for the small.

Baetis Nymph:

Hook:	Sizes #16–#20, Mustad #94840 or #94842
Thread:	Medium olive, 6/0 nylon
Tails:	Three tips of gray ostrich herls
Ribbing:	Fine gold wire
Body:	Greenish-olive to brownish-olive dubbing
Wing case:	Section of gray duck quill
Legs:	Three speckled wood duck flank fibres

Dressing a Baetis Nymph:



Left — Clamp hook in vise and bind tying thread at bend. For tails, tie in tips of three gray ostrich herls and wind over herl butts 2/3rds shank length to thorax position. Trim off excess herl butts and tie in one end of a 3″ length of fine gold wire. Hold wire along shank and bind with thread to bend.

Right — Wax several inches of thread next to shank and apply a sparse dubbing.





Left — Roll dubbed thread between fingers until dubbing is relatively thin and tapered. Then wrap dubbing forward to position shown.

Right — Wind wire ribbing counter-clockwise in spaced turns and tie off at forward end of dubbed body. Cut or break off excess ribbing. For wing case, tie in a section of gray duck quill, about 3/16″ wide, with tip forward. Then wrap over quill and fore part of body toward midshank.





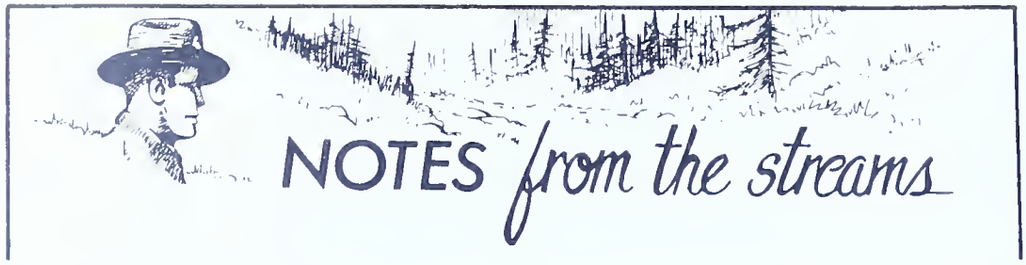
Left — For legs, tie in three wood duck flank fibres under shank and trim to length shown. Coat legs with thin vinyl cement or acrylic lacquer.

Right — Apply more dubbing to thread and wind forward for thorax, avoiding disturbing position of legs. Tie off behind eye. Then apply vinyl cement to underside of wing case and pull forward over thorax. Tie off wing case and trim excess. Then build a neat head and whip-finish. Apply vinyl cement to wing case and lacquer to head.



Right — The Baetis Nymph is completed by bending leg joints with tweezers.





OVER AND OVER AGAIN!

This year, an Ohio resident was prosecuted for fishing without a nonresident fishing license at Alvin Bush Dam. After paying the fine, the defendant told me he had been prosecuted earlier this year, by an Ohio Conservation Officer for — you guessed it — ***no fishing license!*** Hopefully, this young man has learned his lesson, although I mused about him going to another state, perhaps Vermont, where he would then learn "naturally"!

Jay B. Johnston
Waterways Patrolman
Clinton County

EAVESDROPPERS?

While patrolling Harvcys Lake, Deputy Waterways Patrolman Urban and I obscrved a very gorgeous blond female standing on a nearby dock. Now while we admit this is not an uncommon sight at Harveys Lake, what might be called uncommon was the fact that the young lady was completely nude!

We radioed Harveys Lakc Patrolman John Lurch and informed him of the situation and he replied he was on his way to investigate. Wc watched as Patrolman Lurch parked his cruiser and proceeded down a flight of steps onto the dock in question, and as he spoke to the two young women there, we could scc as he pointed out to our patrol boat, evidcntly informing the woman he was talking to, that we had directed him onto the situation. Evidently others were also monitoring our frequency, as we soon saw the duty USCG Auxiliary Safety Patrol, and others coming to the area for a "look see." The young blond was still standing there, looking like Lady Godiva . . . except that she was approximately three to four years old!

Claude M. Neifert
Waterways Patrolman
N/Luzerne County

SURE SIGN!

While patrolling the Shenango River near New Hamburg last spring, I was approaching an area of large rocks that had been used as fill when the road was built when I heard some movement in the dry leaves. Upon stopping to see what it was all about, I noticed a garter snake moving along the base of a rock, then another, and still another, until there were seven, all in an area of approximately 6–8 feet. After watching thesc creatures for a short while the thought that seemed foremost in my mind was "it must *finally* be spring."

Larry V. Boor
Waterways Patrolman
Mercer County

EASY DOES IT —

While most anglers use bigger tackle whcn fishing for larger fish there is always the exception either deliberate or accidental when an unusually large fish is landed on what would normally bc considered less than adequate gear. Such a case occurred just recently with Dr. Robert Rawdon (from Lewistown) while he was fishing the Juniata River. Hc was using ultralight fishing tackle in hopes of catching a few smallmouth bass. While casting one of the new "naturalized" lures in thc waters just below Lewistown he became "snagged" on the bottom. After a few tugs on the line it began to move out into dceper water. A few moments later a big musky jumped out of the water with the lure firmly hookcd in its mouth. Doc Rowdon fought thc fish for about fifteen minutes, knowing that at any time it was going to brcak his line and escape for sure. He finally landed the big fish without a gaff or net. The fish measured 44½ inches and weighed over twenty pounds, and it was caught and landed on 4-pound-test line with no steel leader! This is another indication that a little patience, skill and some luck can sometimes take the place of heavy terminal tackle when going after the big fish.

Larry R. Baker
Waterways Patrolman
Mifflin/Juniata Counties

NOT GUILTY!

During the McKean County Fair, I was attempting to locate some "pass out" literature left over from the mini-fair which was held in May. Not having any luck, I asked a fellow if he knew anything about it. The man didn't know but he directed me to a booth being set up by two ladies. Seeing my approach, the one lady said, "Oh! There's a cop!" I replied, "No, Mam, I'm a Waterways Patrolman." She exclaimed, ***"We're not wasting any water!"***

Don Parrish
Waterways Patrolman
McKean County

PROS & CONS

I hear pros and cons in regard to the new unannounced inseason trout stocking policy. This new policy seems to have had one sure effect, though, as more trout fishermen havc reported that they have caught many more trout late into the summer than they did in previous years under the old trout stocking system. This would also indicate that there will be a bcttcr chance for some of the stocked trout to hold over for another scason.

Bud Flyte
Wayterways Patrolman
Somerset County

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Street or RD#—Include Box Number

City State Zipcode

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☐ Renewal

Use Check or Money Order for Remittance
(DO NOT SEND CASH!)

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Pennsylvania Fish Commission
Angler Circulation
P.O. Box 1673
Harrisburg, Pa. 17120

LANGUAGE BARRIER —

At times when we enforce the Fish & Boat laws we run across some unusual circumstances when these laws are broken. The most recent one I encountered was when an individual from the Far East violated the Boat Law, and after a period of time I finally explained the seriousness of the violation and the amount of the penalty. Being that I could not speak his language I also explained that he could settle on a Field Acknowledgment of Guilt and it was at this time I was wondering if he was going to pay the prescribed amount in "Yen." After a short deliberation with his cohorts which consisted of speaking in their language, the defendant did pay the prescribed amount in American money.

Robert L. Kish
Waterways Patrolman
Cambria County

IDENTITY CRISIS

There is a uniform requirement in the Deputy Training Manual that reads in part *". . . extremely long hair will be avoided. The hair shall be well groomed and not allowed to grow longer than the upper part of the collar line. Hair shall not cover the ears."*

This year, however, I have resorted to letting my hair length reach my shoulders — strictly out of self-defense. Last year on numerous occasions I was referred to as ***"Fella," "Sonny,"*** *and even* ***"Sir."*** *I'm happy to say that so far this year there has been no mistaking my identity as a FEMALE* Deputy Waterways Patrolman.

Lucille A. Osterhout
Deputy Waterways Patrolman
Wyoming County

DOCUMENTARY —

In addition to being a Special Waterways Patrolman, I also make outdoor nature movies. Last spring, while filming along Pine Creek on opening day of trout season, I observed an individual catching trout and putting them in the creel of the angler on his left. After filming him catch and give away two fish, I asked everyone in the area to hold up their stringers. Everyone did, and, sure enough, the angler in question already had his legal limit of eight. When I informed him of the violation, I gave him the choice of settling on a field receipt or being the star at a special movie preview in front of the District Magistrate. He chose the receipt.

Don Kingery
Deputy Waterways Patrolman
N/Allegheny County

"WISH COME TRUE"!

Each spring when the snow melts the Nanticoke Conservation Club picks up tons of litter along Harvey's Creek that has been thrown by thoughtless, ignorant persons. Car washers of the summer and beer party people year-round make this mess. Today I had the opportunity of helping the fellows from the club picking up litter and building several "fish habitat improvement" devices in the stream. The day was hot and the sweat was running freely. With every bag of litter we filled we wished aloud that we could just catch one of those litterbugs. Shortly, a car pulled into a parking area ahead of us, a young fellow got out and pitched his beer bottle. It has been a long time since I have had a wish come true like that!

Thanks to the Nanticoke Conservation Club, Harvey's Creek is a much nicer and cleaner place to fish and visit each year.

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

RAPID DEPARTURE!

Some boaters at Leaser Lake related this story to Deputy Stanley Long. Earlier that day they had observed a large musky swimming near the surface of the water. Apparently, just his snout was cutting the water's surface, but his body was quite visible. A man and woman, who were in a canoe, came very close to the musky before the woman noticed it. She obviously didn't realize what it was for she was heard to exclaim in a loud voice that, ***"There were serpents in the lake!"*** and headed out of there as fast as her paddle would take her!

Fred Mussel
Waterways Patrolman
Lehigh County

BIGGER HAT

Earlier this year, while working at the launch ramp on Shenango Lake I noticed an individual with a "different-looking" hat. As the gentleman was launching his boat I couldn't help wonder, "What's all over that hat?" After the boat was off the trailer I approached the gentleman and inquired about the strange looking hat. What made the headpiece look so different was, it was *totally covered* with fishing licenses from years past. While admiring the strange display the owner stated, " I have a lot more but I need a bigger hat to put them on."

Larry V. Boor
Waterways Patrolman
Mercer County

HOOKED!

A recent check of a fisherman on Nockamixon Lake revealed that he did not have his fishing license with him. The fisherman reeled in his line baited with a minnow and stood the rod against a stump partly submerged along the shoreline. After telling "little white lies" for about five minutes, he admitted that he did not have a license. While I was writing down the information I needed, the fisherman stated that he had not caught anything, and, therefore should not be penalized. Later, after approaching the fisherman's shore-bound rod, we discovered that his last statement was also false. A 2½-foot water snake had gulped his minnow and was firmly attached to his hook! The snake was released unharmed by Special Waterways Patrolman Barry Clymer.

Stan Plevyak
Waterways Patrolman
N/Bucks County

DIE-HARD FISHERMAN

Trooper Ando, of the Pennsylvania State Police, Kittanning Barracks, picked up a very wet Marine from Kittanning, April 14, in the early morning hours, hitchhiking along route 66 near Leechburg, Pennsylvania, in the rain. The young Marine had hitchhiked all the way from North Carolina to Armstrong County to be home for the opening hour of the 1979 Trout Season. The young marine stated he had *never* missed the opening day for trout season since he had started fishing!

Jim Smith
Waterways Patrolman
Armstrong County

PROFITABLE PLUNGE!

This story was referred to me by Caly Carlton, a fellow employee, at work. On a recent fishing trip down the Lehigh River, he and his son, Terry, were just about to leave the boundary water of Carbon County and enter into Lehigh and Northampton County waters just below Lehigh Gap. While looking into the water to check the depth so as not to puncture their rubber raft, he spied something that looked out of the ordinary. Without hesitation, Caly jumped into the water and grabbed the foreign object. After returning to the raft, a couple of fishermen along the shore asked what he found. He proudly displayed a $20.00 bill that had been clinging to a triangular rock.

Ray Heiser, Jr.
Deputy Waterways Patrolman
Carbon County

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Bass are not finicky eaters. They find frogs, nymphs and other insects in the weed beds, and crayfish in stony areas. They relish minnows and small chubs, bluegills, golden shiners, and other forage fish everywhere, especially in the shallows.

Mention jigs, and most anglers think of lead lures they have to make jump and hop over the bottom of a stream or lake. At times, a better system is to allow the jig to sink to the bottom, then crawl it slowly along, stopping every eight or ten inches.

Hook size is important in minnow fishing. With a bait three inches or longer, use a No. 6 hook. With smaller minnows, hooks in sizes 8 or 10 are better. Try to match the hook size to the minnow.

Bulky flies tied on heavy hooks are good for fishing water that is high, fast moving and discolored. But lower water, slower current, and clearer water demand smaller and more sparsely dressed flies.

In fishing flat water for trout, use spiders and variants in size 14, and on fast water use spiders and variants in size 10 or 12.

A ledge of rocks, the partly washed out roots of a tree or a patch of boulders along a stream bank are fine fishing targets. But, don't get too close. Stay as far from the area as you can try to float the lure or bait into the spot, with the tip of the rod held high and a bit of slack in the line to make a natural drift possible.



Use a short line in fishing fast water where fish cannot see you clearly and you can approach quite close to them. Short casts also give better control of the fly or other lure, which is more difficult with very long casts.

A streamer fly is big and fluffy when it is dry (top). It looks like just a bunch of feathers. But when the streamer is fished, and it gets wet, the dressing slims down and the lure looks like a minnow. So, don't judge the size or appearance of a streamer when it is dry.



You have spooked fish by wading carelessly into a pool, sending the fish fleeing in panic. All is not lost, however. Remember where those fish were lying when you frightened them, then return to the pool an hour or so later and fish carefully. The fish will likely have returned to the spot where you frightened them.

Catch a good bass in a weedy, rather shallow area of water, then keep on fishing that area. If one good fish likes the spot, others will too. In fact, this business of moving along a shoreline, with each cast aimed at a different spot in the water, is not a good system unless strikes are few and far between and the angler is, actually, searching for a spot where the fish are concentrated.

A leader tippet at least two feet long and as fine as 5X or 6X is required for effective use of very small flies.

Fishing from a drifting boat is a good way to cover a lot of water. But you should cast your bait or lure in the direction in which the boat is drifting, either directly ahead or slightly to one side of the boat, so that there is little or no drag on the line that can lessen the effectiveness of lure or bait.

Soak wet flies, streamers and bucktails thoroughly before beginning to fish with them. Otherwise, they will float on or very near the surface until they absorb enough water to send them down into the depths where they attract fish.

Match the lures you use to the type of water you are fishing — especially for bass, pike and pickerel. Use weedless lures in water that contains thick vegetation. Turn to surface lures when fishing shallows. Employ sinking plugs and spoons and jigs when fishing close to the bottom or in very deep water.

Four good patterns for taking trout when no hatches are in evidence are the Quill Gordon, Light and Dark Cahills, March Brown and the bivisible Royal Coachman.

Much time is wasted in changing from one fly pattern to another when action is slow. If the fly being used closely imitates natural insects likely to be in or on the water, it is better to stay with the original pattern and to explore the water carefully to find spots where trout may be located at the moment.

Add a tiny slice of thin pork rind or plastic pork strip to a streamer fly to give it a bit more action.

Trolling in a straight line is not the most effective method. Follow a zig-zag course, and you'll cover a lot more water.

Pockets of relatively quiet water below waterfalls and swift rapids are top feeding areas for bass and trout. Natural food is carried into the quiet water, where it is easily taken by the fish. Let bait or lure ride into the pool with the current on a slack line.



That first cast with a lure is the most critical. It must be made as accurately and carefully as possible. Any subsequent cast increases the risk of putting a fish down, for few of us are capable of making a series of perfect casts over the same spot.

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DECEMBER—1979

PENNSYLVANIA Angler

the Keystone State's Official FISHING · BOATING Magazine...

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ERIE'S NIGHTMARE

This year, Erie County experienced the best salmon fishing season in history. Most of this success was due to the return of a record stocking of young coho salmon (971,000) by the Pennsylvania Fish Commission in the spring of 1978. Coho salmon have a three-year life cycle; they are reared in our fish cultural stations and kept in holding stations until they reach proper smolting age, then released. In September and October of 1979, they returned by the thousands. The chinook salmon, first introduced by the Fish Commission in Lake Erie in 1971, has a five-year cycle; and, since our earlier releases were small fish, little return has been realized. We are, however, holding a number of these for 18 months before smolting and expect better future returns.

The tributaries to Lake Erie in Pennsylvania are very small. And, although adequate flows exist for smolting juveniles, the return of large numbers of adult fish running five to eight pounds provided the background for a nightmare! Some of these tributaries have been declared nursery waters in their entirety; on others, portions have been declared nursery waters for the purpose of securing spawn for succeeding generations of salmon. Surplus salmon are either transported to inland lakes to provide additional recreational fishing, or sold, at high bid, to a commercial fishery.

Although the Fish Commission had attempted, early in the salmon program, to secure property for parking and public use facilities along a number of tributaries, including Trout Run, the expected resistance from landowners mandated our acquiring additional property only on Walnut Creek. This has developed into what might be called a "mini-state park"! Our public use building at Walnut Creek will be completed over the next couple of years.

What bothers us is people's reactions: the horror stories from our beefed-up law enforcement patrols in Erie County, from the news media, and from disgusted anglers . . . it proves that all of the slobs were not depicted in "The Guns of Autumn." Lined up, elbow-to-elbow, at the mouths of the tributaries, these people fought each other, knocking each other down to command a better spot for snagging fish; kicking, stomping, netting . . . even extending their activities into nursery waters where a great number of them were promptly and properly arrested. One pair even devised a bomb which, tragically, exploded prematurely — one of those young men lost both his hands. We arrested a public official in a business suit, complete with shirt, tie, and vest, *and no boots,* wading glassy-eyed into the nursery waters on Trout Run!

The Fish Commission cooperated with local municipalities and the Erie County Health Department in restoring some semblance of order to this intolerable display of odious human behavior: parking on private property, cleaning fish on front lawns . . . *relieving themselves on private property!* To help alleviate this insufferable mess, portable toilets were installed, through a cooperative effort, on Trout Run *where no public land is available;* trash was picked up; warning signs were posted.

In early October, the Commission opened greater lengths of Elk Creek, Walnut Creek, Crooked Creek, and Twenty Mile Creek, followed shortly by permitting trout and salmon fishing in all Lake Erie tributary streams, except designated nursery waters.

One thing is certain: the 1980 returns of coho will not be in any record numbers such as were seen in 1979. Our water supply problems and disease cut the number of coho salmon smolts drastically, and that will show up in the 1980 run.

We think the salmon program is a success. Certainly those motels and other businesses in Erie County which have benefitted from the influx of tourists and anglers should agree to that. We also noted how relatively few slobs it takes to turn a clean sport into a nightmare. Unfortunately, the atmosphere is infectious, and people who would have never thought of illegally snagging fish turned to that unsportsmanlike conduct to "get their share." We are going to do our best, with sportsmen's cooperation, to see that this does not happen again. The program is too good to have it ruined by ungrateful slobs!

Ralph W. Abele
Executive Director

Pennsylvania Angler

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FRONT COVER

Talk about die-hard fishermen! The story of some hot action during cold weather begins on page 6 of this issue. Dr. Dale Steventon in the foreground is wearing a "float coat" which offers protection from both the cold weather and an unexpected dip, should one occur. Smokey Schaffer, who stood up cautiously for the picture, wears a PFD vest under a heavy outer garment. Photo by Tom Fegely.

BACK COVER

Staff Photographer Russell Gettig has captured, once again, the beauty of winter along one of Pennsylvania's streams. Winter photography, when you are not too engrossed in your fishing, can be an exceptionally rewarding experience.

MONTHLY COLUMNS

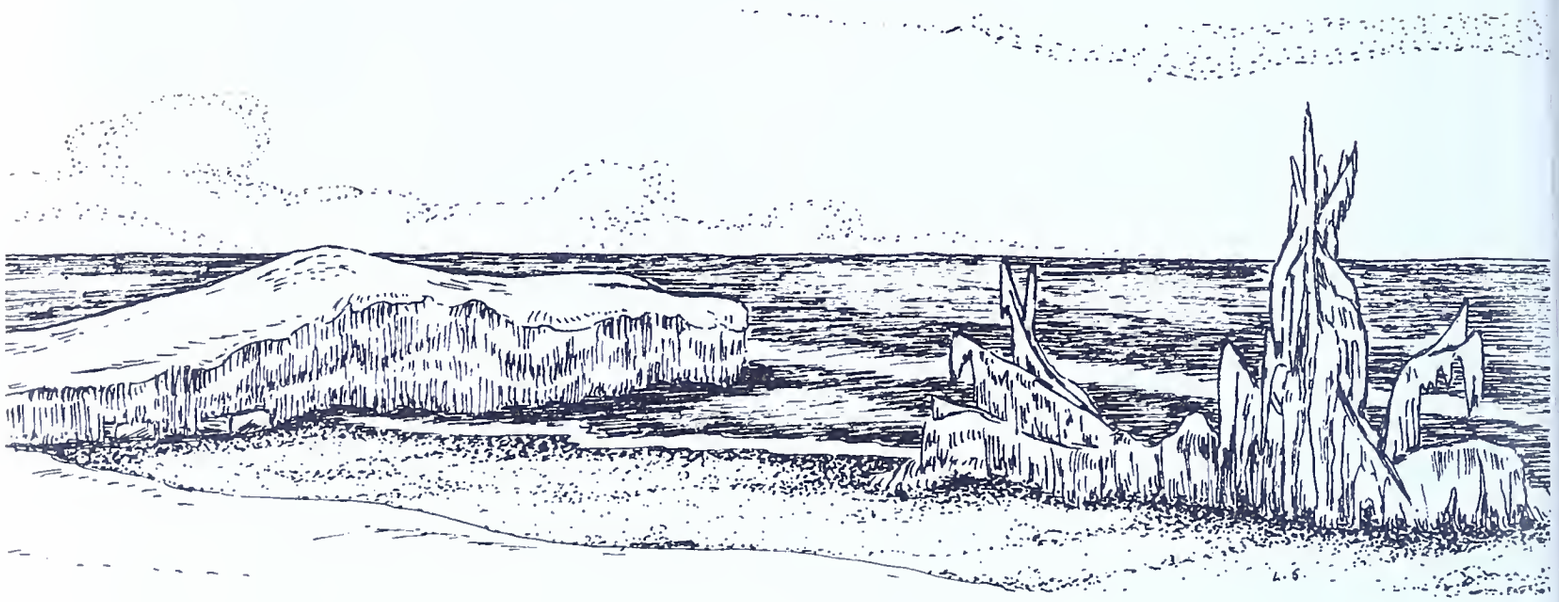
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Waterside Wanderings

by Linda Steiner



December is marked by ice formation and at this time of year the waters of the state are slowly locking up in frozen form so that soon the only recreation for the angler will be fishing through small holes cut in ice covered lakes. But right now, I find myself between fishing seasons.

With Pennsylvania's lakes and ponds still becoming ice, the surface is often too thin to stand *on* and too thick to fish *through*. This always seems to be the case when I can get some time to go winter trout fishing in one of the lakes which the Fish Commission stocks. I guess I'll just have to wait for the ice so I can trade my spinning rod for a jigging pole, or be lucky enough to go out on one of those December days that feel like lingering fall or early spring, and find the lake clear.

Most of the larger streams and rivers are open yet. I see the walleye and musky fishermen out on them in their small boats until the creeks are choked with ice and, along the shoreline, the floes pile up like icebergs. Splashing water freezes to the metal boats, ice clogs the rod guides, turns monofilament line into stiff wire and freezes to woolen gloves and jackets. The hazards of being a winter fisherman!

In the transformation from liquid to solid, water is an incredible substance. It is an excellent heat retainer, as it requires unusually large amounts of warming and cooling to raise or lower its temperature even one degree. That is why a big body of water always has a mitigating effect on the climate of the area surrounding it, both summer and winter.

But when water does freeze, as is happening in ponds and lakes across the state, it is doing something else that is quite remarkable. As in most substances, water becomes denser as it cools, but unlike many other liquids, it doesn't simply become thicker and heavier until it freezes solid.

When water cools to about 39 degrees Fahrenheit (4 degrees Celsius), it expands slightly, becoming less dense and lighter. That very cold water will float, therefore, and as it reaches 32 degrees F. (0 degrees C.), and actually freezes, it becomes even more buoyant and expands, as anyone knows who has put a filled, capped container in the freezer. This is also the reason why the ice is on the top of a lake.

The coldest water in a lake is always just below the ice, and the warmer water is beneath that, so that only the shallowest ponds ever freeze solid. It is no wonder that when ice fishing, I usually find that the fish are near the bottom.

While I am waiting for all this to happen, I am most often along the waterside in December while engaged in other outdoor activities, such as hunting, hiking, ski touring, or just rambling — if the snow isn't too deep. Along with the transformation of water to ice comes the first of the season's deep snowfalls and, if I can do nothing else, I can be there to appreciate the change that snow and ice make in the appearance of Pennsylvania's lakes and streams. It's fun to take my camera or sketch pad along because water, cold and sunlight team up to produce some hauntingly beautiful scenes.

A nighttime ice storm had turned the mountainside I was climbing into

a glittering land of crystallized trees and branches, and when the morning sun appeared, it set them glowing. In the fragile, glasslike world, slim fingers of ice hung from every limb and leaf and cascaded in frozen sheets from rocks and bushes. But in the icy fairyland the forest had now become, only one sound could be heard, besides the occasional tinkling of the natural chandeliers as one ice-covered branch touched another, only one thing seemed to still be in motion. Continuing up the hill and dropping into a hollow, I found the murmuring was from a tiny creek, Wolf Run. Of course, there are no longer any wolves in southwestern Pennsylvania, but the name did not seem incongruous with the little stream hidden in the mountain hollow, especially when the snow and ice made the setting seem strange . . . *wild.*

The run has its source in the yet unfrozen hemlock swamp on the mountaintop, where turkeys and deer may still feed on the soft plants. Even in winter, the waters of the state are a focal point for wildlife activity, especially where they remain ice-free due to the motion of the water or the presence of springs.

Downstream, raccoons and a mink had visited the waterside. Their tracks in the snow had been preserved by the glaze from the ice storm, and I could still see where they had been digging in the soft bank along the stream or poked under rocks and logs. They were no doubt looking for a meal of a hibernating frog, salamander, snake, crayfish, even some insects, overwintering as torpid adults, fat larvae, or masses of eggs.

Where I stood, Wolf Run had been transformed by the season into the kind of picture you see on holiday cards. Shadowing the creek was a canopy of green, ice-glazed leaves of mountain laurel and rhododendron, while from overhanging snow banks, long icicles dripped to the water. The creek water itself was clear and I wondered if the light-colored sand and gravel bottom hid the eggs of fall-spawning brook trout, arrested in their development until spring.

I could sometimes see small trout in the shaded portions of the creek in the summertime, but now there were only icy water and deep blue shadows of the hemlocks. Where the sun pierced through the branches, the snow was brilliant white and the ice flashed prism rainbows. The shadow of a chickadee swooped in and the bird found a spider under a loose piece of bark on a bush overhanging the creek. In another season the spider may have spun a web there and caught caddis flies and other insects emerging from and flying over the little stream.

If you spend any time outdoors in the winter, no doubt this description of a woodland creek mantled in ice and snow reminds you of one you have seen. Then you will also agree that, although in this case the glassy world caused by the ice storm would disappear as the sun rose and melted it, waterfalls are particularly good places to see the more lasting effects of water and cold.

One head-high falls in the northwestern part of the state, below which we often fished in the



springtime, sends up a shower of spray that in frigid weather freezes to trees and streamside rocks and bushes, creating the same crystalline effect. But one day that I was there I noticed that something about the falling water seemed strange. The liquid itself appeared unusual, and I commented at the time that the falls looked as if, had the water not been moving, it would have frozen in place!

It wasn't an illusion. Cold water is physically thicker, more viscous is the chemical word, than hot. As it reaches the temperature at which it is most dense, near 39 degrees F., it is heaviest and thickest, and this is noticeable under certain conditions. Very hot water seems thin and splashy, and is.

On the opposite side of the state, the Pocono Region, with its many waterfalls, is particularly beautiful as the winter snow and ice settles in. The canyon of Shohola Falls often produces an unusual scene when the springs and runoff water, which usually drip over the rock cliffs, freeze to form tall, white, cascading columns, tinted with hints of blue, green and stained pinkish brown from seeping soil.

Along the shore of Lake Erie in early winter, the wave action of the lake on frigid structures surrounding it creates unusually beautiful and grotesque ice formations from familiar objects. A dock develops a thick coating of ice as the waves wash it and the temperature drops. Icicles form in rows, like layer upon layer of fringes along its sides. Spars or driftwood trees become huge ice castles, complete with spires, towers and ice pillars on every floor. Tree branches grow rows of icicle teeth. But the effect vanishes when the lake itself freezes, and looking out from the shore now, I have an impression of what the frozen arctic of flat whiteness and heaving ice ridges must look like.

Along many rivers and creeks, which are still relatively warm when the first northern air blasts through the state, the mist rising from the water, like your breath on a cold day, freezes to streamside trees, producing an early morning hoarfrost, sometimes over an inch thick. This gives the appearance of it having snowed only along the waterway. Fragile ice crystals coat every limb, twig and shoreline weed. If you want to take advantage of this ephemeral photographer's dream, be there early before the rising sun destroys it.

The freshwater of Pennsylvania, as elsewhere, is interesting for its life-giving properties, and it provides a medium of existence for all the fishes and other organisms that live immersed in it. But as it freezes it displays a physical beauty all its own, quite apart from its other roles. From the intricate formations of ice crystals and snowflakes, to the almost alien world created out of familiar streamside surroundings, it works its magic on the landscape with snow and ice. If you're fishing this month, just checking the ice thickness on the lake from time to time, or outdoors for some other recreation, you'll find the waterside world is a different world in December.



We've said it before; we'll say it again: properly prepared, the carp is delicious table fare. The author tells many ways it can be done.

MEALS from the CREEL

by Margaret Karch Zaimes

"Spurn me not . . . I am good eating if treated kindly." This should be the chant of the much-maligned carp. Unfortunately, most people have never tried the prolific breeder that is overpopulating many of Pennsylvania's waters.

Carp are not native to the U.S. Back in 1870, however, it was one of the world's most important freshwater food fish. Our federal government considered this a good reason for importing and releasing carp in Eastern U.S. waters. However, the ready availability of meat and other fish at that time prevented it from becoming a popular fish in the average household.

Ignored by fishermen, the carp continued to breed and spread from ponds and lakes into streams. It prefers warm waters but it never scorns the cold waters of Pennsylvania and will survive wherever it can find sufficient food.

Many years ago, fish markets were equipped with large retaining tubs containing fresh water to keep carp alive until sold. No housewife in the know would purchase carp unless it was alive. This was back in the days when the "Saturday night bath" was a ritual, and the bathtub was used on other weekdays to keep the fish alive.

The biggest complaint about carp is the muddy taste it usually has but this can be eliminated by keeping the fish alive until you get home and then placing it in cold water for several days. Now this is where the home bathtub came into the act. It was the perfect spot for the housewife to store that live carp and permit it to cleanse itself.

Today's life style requires a daily bath or shower . . . and who would want to share the tub with a good-sized carp? If you are lucky enough to have two bathrooms available for the family to use, lend the extra one to a carp for several days. Being a bottom feeder, the carp won't even think of jumping out. Allow a little fresh water to continue running into the tub, just enough for the overflow drain to carry off the excess. Toss in a handful or two of uncooked Mother's Oats to sustain the scaly critter during the cleansing process.

Lacking the desire to share your tub, any good-sized leak-proof container can be used outdoors to do the job. If you have recently replaced your indoor tub, make it into a decorative outdoor pool, plant flowers around it; plug the bottom drain and use it for carp purging. Right handy when you decide to have fish for dinner in the next day or two.

I'm sure the carp would not be scorned by today's angler if he knew how to eliminate the muddy taste that is frequently present. The flavor of all fish is governed by the season and the quality of the water they are taken from. Even trout, shad, pickerel and panfish will acquire an "off" taste when caught in water that has been roiled by several days of heavy rain.

Carp, one of nature's vacuum cleaners, are bottom feeders and suck food from river, pond or lake bottoms, separating the edible portion and spewing the undesirable mud and sand back into the water, causing it to become murky. If your disposable vacuum cleaner bag splits while in use and your room is suddenly filled with floating dust particles, you'll understand the feeding habit of the carp. Eventually the dust will settle to floor level, meantime you'll be inhaling dust. Carp feed more often than you use your vacuum with a split bag, resulting in the water being roiled more often.

The filter system in the vacuum can be replaced — but not so with the carp. The red "mud" stripe running under the skin and the full length of the carp's body acts as a filter and collecting point as does the vacuum bag. Unfortunately the stripe is not replaceable while the fish is living. This is where the running cold water cleansing process enters the scene.

Being on the slippery side, as trout are, it is a good idea to add strong vinegar to the purging water several hours before removing the fish. The fish will exude a gelatinous film and make it much easier to handle when cleaning it.

Don't ignore the sporting qualities of the carp — it is a hard fighter. You'll find it is a cagey "devil" and does require as much expertise on the part of the angler as any other fish sought.

It is optional as to whether you purge the carp you catch. Some anglers do and others prefer to clean and filet them immediately.

We have found the following method for dressing a catch is quick and easy. Using a long, sharp fileting knife, make the first cut diagonally behind the gill plate and head, cutting right down to the backbone. Next, insert the point of the knife and run it next to the backbone with the cutting edge pointing toward the dorsal fin. As you move the knife toward the fish's tail, slice gently toward the dorsal, making sure to keep the blade flat against the bones. In this way, you'll be cutting all the meat away from the

bones. When the knife reaches the tail, you'll have the upper half of the filet separated from the fish. Then, cut carefully over the entire length of the backbone and repeat the cutting away process on the lower half of the filet.

Turn the fish over and do the same thing on the other side. When you've finished, the head, rib cage, backbone and tail will be in one piece and can be discarded.

Now, you're ready to skin the fish. Lay the filet, skin side down, just inside the edge of your table or counter. Make the initial cut about a half-inch from the tail, being careful to cut only through the meat and not through the skin. When the blade reaches the skin, turn the cutting edge toward the head end of the filet and, with the blade flat against the table or counter top, slice the meat away from the skin. It helps to hold the tail end of the filet with your free hand while making the cut.

When both filets have been skinned, you can easily cut away the strip of red meat that holds the "muddy taste."

Incidentally, this is a good way to filet any fish.

Wash filets thoroughly in cold water and they are ready to prepare in any of the following ways.

A. J. McClane, author of the *Encyclopedia of Fish Cookery,* recommends using a dry marinade to improve the flavor of carp before cooking.To make the marinade you'll need:

1 cup finely ground onion, including the juice
1 cup kosher salt
2 tbsp vinegar
1 tsp black pepper
⅛ tsp grated mace

Combine all ingredients and mix thoroughly. Place fish on nonmetal platter and spread marinade over the fish. Allow to stand for one hour. Wash fish in pan of cold water to remove all traces of surface salt.

No additional seasonings will be needed if marinated fish is cooked in any of the following ways:

To pan fry, cut fish into about ¾-inch thick strips. Dip each strip in cold water and then roll in unseasoned fine bread crumbs or a half-and-half mixture of flour and cornmeal.

To bake, stuff half or whole filet with your favorite bread stuffing and fold other half over it; close with toothpicks. Cover top of fish with thin slices of onion and tomatoes. If fresh tomatoes are unavailable, cover onion slices with canned or stewed tomatoes. Bake at 350 degrees until fish flakes easily. Smaller filets may be layered with stuffing between each layer.

Another method for pre-treating the fish is to sprinkle all sides with kosher salt and let stand for a half-hour in a nonmetal dish. Prepare in the following manner.

2 lbs carp filet cut into serving sized pieces
2 strips bacon, diced
2 or 3 onions, finely chopped
¼ tsp dill seed
½ tsp paprika
Butter
1 cup sour cream

While fish is salt curing, fry bacon, add chopped onions and stir in dill seed and paprika. Continue stirring until onion is lightly browned.

Coat inside of a bake-and-serve loaf pan liberally with butter. Shake off as much salt as possible from the filets and place a layer of fish over bottom of pan. Spread half the onion and bacon mixture over fish. Cover with the remaining filets and top with bacon-onion mixture.

Pour ½ cup sour cream over all and bake at 425 degrees until fish flakes when fork tested, Pour remaining half cup of sour cream over the top and bake for an additional five minutes. Garnish with fresh dill or parsley when serving.

Perhaps you like your fish broiled. If so, cut the belly portion and fatty lower side from filets and broil in preheated broiler. Brush frequently with bacon drippings while broiling. Fish should be about 2 inches below heat source.

To make a tasty appetizer, wrap oyster size chunks in bacon strips and broil until fish flakes easily.

Carp, like many fish, is delicious when smoked and makes excellent snacking food.

To smoke, trim away fatty belly portions of filets when cleaning fish. Wash fish with salt water and then lightly cover with dry salt, allow to stand overnight in the refrigerator. The following day, rinse clean, drain and pat dry with paper toweling. Put filets on smoker rack. Do not try hanging them or they will fall apart. Smoke for several hours in a hot smoker so they will be completely cooked.

Frank Zionkoski of Wilkes-Barre smokes his "finger lickin good" carp snacks in the following way: Frank skins and removes the bones of a four- or five-pound carp and cuts the meat into two-inch-thick chunks and covers them with what he calls a "regular brine" with saltpeter added. A large crock or glass jar is used — never a metal container — and then he stores the filled crock in a refrigerator for about a month. He was not quite sure of the proportions — he has been doing it so many years he no longer measures the ingredients.

After brining time is completed, the fish chunks are removed and thoroughly washed. The washed chunks are drained and air-dried before placing on smoker racks. Cold smoke for about a half hour.

We recommend using kosher salt in all the above salting processes in preference to ordinary table salt because it is pure salt and does not contain any additives.

Carp flesh is firm and sweet tasting when the fish is taken from the cold waters of late autumn or in early March — just after the ice moves off the rivers.

My friend, Mary Taggert, of Moosehead Lodge in Quebec Province, Canada, sent me the following recipe for *Sweet and Sour Fish with Pineapple.* To make, assemble the following:

1 lb fish cut into ¾ inch pieces
2 eggs
¼ tsp salt
¼ tsp yellow food coloring
1½ cups cold water, divided
2 cups flour

Mix together eggs, salt, coloring and half the water. Beat two minutes. Add flour and mix well. Add remaining water and beat until batter is creamy. If batter is too thick, add a little more water to make batter creamy. Meanwhile, heat vegetable oil or shortening in deep fryer.

Dip each piece of fish into batter and deep fry until golden. Drain and keep hot in warm oven while making the following sweet and sour sauce:

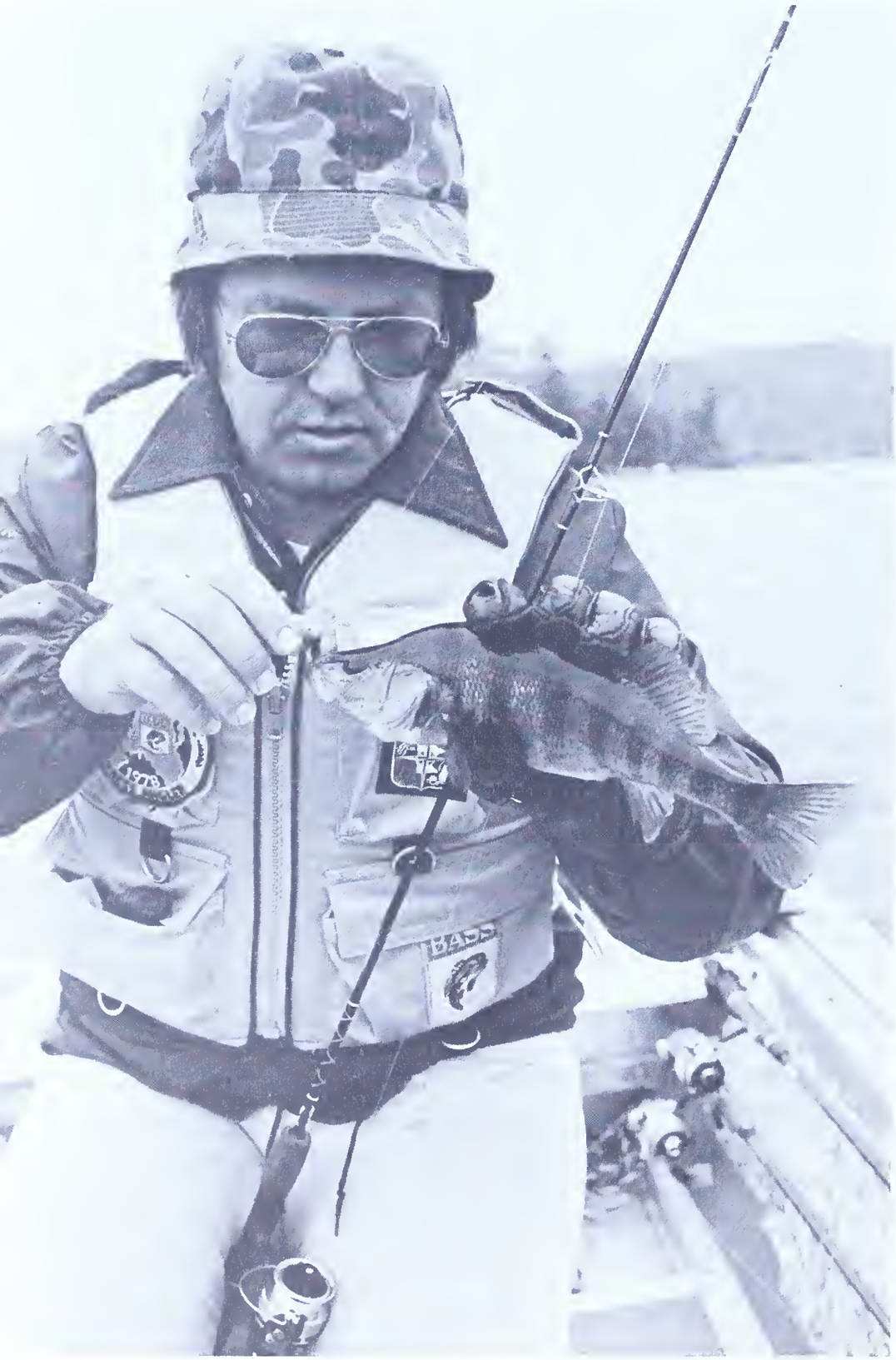
½ cup white vinegar
2½ tbsp cornstarch
4 tsp water
5 tbsp brown sugar
5 tbsp catsup

Mix all ingredients. Heat and continue stirring until sauce is hot and thickens. Heap fried fish into a deep platter or bowl and top with 1 cup drained pineapple chunks. Pour hot sauce over all.

"Heavy" is the action to be had using an ultralight wand during . . .

Jig Time in December

by Tom Fegely
photos by the author



The author unhooks a fat perch taken on ultralight tackle and a jig. Note use of PFD. All in party were wearing Personal Flotation Devices. "Doc" Steventon, next page, wore increasingly popular "float coat."

Don't be too hasty about stashing away that ultralight outfit. Though your mind may be on deer hunting or the upcoming ice fishing season at the moment, there's still plenty of good freshwater fishing left in Pennsylvania's lakes. In fact, this "jig time" period of the year, prior to freeze-up, may be the most productive of 1979.

A case in point is a perch fishing trip I took with a couple friends just prior to the deer season last year. Accompanied by Tom "Smokey" Schaffer and Dr. Dale Steventon, both of Allentown, we launched our boat onto a Pocono Mountain lake that we knew had a hefty population of perch — plus largemouth bass, chain pickerel and crappies.

But it was the prospect of coming



That's real snow falling on Dr. Dale Steventon, left, and Tom "Smokey" Schaffer after a hot (?) day of jigging.

home with enough of the tasty perch to fillet and fry for the evening meal at Schaffer's Pike County cabin that encouraged us to launch the electric motor driven boat in 28 degree weather.

Early winter perch jigging is a sport pursued by relatively few anglers. In fact, we were the only ones on the lake that day. By midmorning snow began to fall and it only let up for about an hour all day. But the "hot" fishing kept up all day long despite our cold cheeks and freezing fingers. In fact, by day's end we'd hooked 52 yellow perch, five largemouth bass and a dozen chain pickerel. Two of the bass and all of the pickerel were returned to the water and the other 55 fish filled the live well and weighted down a stringer.

If keeping all those fish sounds gluttonous, keep in mind that the Pennsylvania daily panfish limit is 50 panfish (per person) — and perch are, indeed, panfish. In addition, perch are known to overpopulate waters in which there is not an adequate harvest and this lake was one such overpopulated water.

All three of us used similar gear for the day's fishing. Though the makes of our rods and reels were different, they were all ultralight rods, spinning reels wound with four-pound-test monofilament, and several types of lead jigs. This light equipment is instrumental in developing the "feel" of the perch's hit and in properly working the 1/8 – 1/4 ounce jigs. Though we changed jigs several times throughout the cold morning and afternoon, the best success was realized with either a black and yellow, maribou-tailed jig or a rubber, lead-headed "ugly bug" — also in black and yellow colors. Whether there is any particular significance to the use of these colors at this time of the year is open to speculation. All I know for certain is that we tried red, white, brown and green jigs and only had minimum success. Better than 90 per cent of the catch was made when a yellow, black or yellow-black combination was on the end of the line. And why question success?

Yellow perch are schooling fish. Where you catch one, you'll also find others. This means that when the cold weather action gets hot it stays that way for several minutes at a time.

During one 10-minute stint on that frigid day last year (about noontime, if



Dale Steventon's hefty largemouth bass fell for a black and yellow jig.

my memory serves me correctly), the three of us hooked and boated 15 perch before the hungry nomads moved on or our boat drifted off the hotspot. Ten of them measured 12 inches or better and provided a good fight on the light tackle.

The "secret" to catching these black-striped fish, and the occasional bass and pickerel that are attracted to your offerings, is to first come up with the color and style of lure that's right for the day. This may require some experimentation but with three anglers a variety of combinations can be tested.

The technique for properly using the jigs is relatively easy to master, though Schaffer and Steventon had four or five perch each before I hauled my first one over the side! But the wait was worth it as my initial catch was a fat 15-incher that earned me "lunker" honors for the day. The method that produces in winter is to simply cast out about 10-15 yards, allow a few seconds for the jig to sink, then wind it back at a moderate speed with an occasional twitch of the rod tip. It's this twitch that gives the jig the necessary action that excites the perch and makes them hit.

Upon comparing notes after our first two dozen fish, we determined that it was on the "drop," just after the jig began its downward fall, that the fish were hitting. At times they slammed the lure with such fervor that setting the hook was unnecessary. A few of them seemed to be so hungry that they actually swallowed the jig and it had to be removed from deep in the throat.

Most times, though, a sharp upward motion at the first sign of action on the light end of the rod was necessary to set the hook firmly in the perch's mouth. Numerous misses accompanied the hits and it took some practice to get the hang of things.

When a bass took the offering there was no question as to its identity long before it came to the surface. Though perch are scrappy, they don't outfight largemouths — especially the two and three pounders that didn't seem to have lost too much of their spunk despite the ever-decreasing temperatures in their mountain lake domains.

Small pickerel patrolling the perch schools for immature strays were also enticed to the jigs but most of them were of the "hammer handle" variety and not legal "keeper" size.

One of the problems encountered in late season angling is keeping the upper line guides free of ice. The best way to do it is to regularly blow warm air from your mouth on them and crush the ice with your fingers. A hand warmer, the type you might take along deer hunting, also does quick work of the ice when held against the guides.

In fact, a handwarmer gets plenty of use on a windy, snowy, 28 degree day. Working a spinning reel with gloves is somewhat difficult so I kept my right hand gloveless and occasionally placed it in my pocket where a hand warmer relieved the stiff fingers.

Though I didn't do it at the time, a pair of old wool gloves with the index finger cut out is an excellent way to both keep your hand warm and still be able to feel the line when casting.

Naturally, it's also recommended that thermals and warm outer clothing be worn. Other than casting, landing fish, and pouring hot coffee from the thermos, there's not too much physical activity going on and those north winds can make you feel like a naked penguin on an Antarctic float trip.

The bonus of such a day's fishing is the table fare these fish provide. In cold weather the flesh is firm and white and there's not a better treat for the whole family than batter-fried perch fillets. Dipped in a saucer of whipped eggs, rolled in bread crumbs and fried in hot oil, my kids and I devoured my whole share of the panfish catch in one sitting.

Though fishing with small minnows can probably be just as productive for winter perch and bass, chances are that you'll run out of bait long before the fishing day is over when you hit a good lake and a "hot" day as we did. Then, too, it gets awful cold dipping into the bait bucket time and again for fresh minnows.

That's why I'd recommend stocking up on inexpensive jigs in a variety of styles and colors and giving this pre- and post-Thanksgiving sport a serious try. There are dozens of small lakes and shallow ponds throughout Pennsylvania that are sure to house hungry perch.

As said earlier, this is *not* the time to stash those ultralight outfits for the year — not when "jig time" is hotter than ever on those cold Pennsylvania waters.



Jigging over the side allows lure to be fished at one depth for an indefinite period; a tight line detects strikes.

Cold Water Walleyes

by Bob Korosa photos by the author

There were still patches of ice in the sheltered bays and coves of the lake. A cool breeze put a slight ripple on the chilly waters and a slate gray sky promised snow or sleet. Needless to say, the conditions did not appear idyllic for a fishing adventure.

"This is a perfect day for walleyes," Bill enthusiastically remarked. "We'll run into a school of 'em!"

No matter how I tried, I couldn't hold the eagerness in my voice as Bill did. "Well, we'll wait and see," I glumly remarked.

Bill expertly guided the boat out into the lake and headed toward one of his favorite jigging holes. The boat ride in the elements travelled straight through the down-filled snow suit I had pulled completely around my body and head. As the motor slowed, I peaked out of the down hood. "Are we there yet?" I shiveringly asked. "Yep, this is it," Bill commented.

My partner Bill Edworthy, a well known fisherman in angling circles in the midwest, rigged his rod for the task at hand. I shiveringly poured myself a cup of steaming coffee to quell the ease of shakes the ride had given me.

Before the second swallow had landed in my stomach, Bill was calling for the net. "It feels like a pretty good one!" Bill exclaimed. He fought the fish gingerly on the light spinning tackle. Several minutes and a couple of mad dashes later, the four-pound walleye was led to the net. "Not too bad for a start," he noted.

That four-pounder led to a day's total of eighteen walleyes landed. It was my first introduction to coldwater jigging for this gamefish. Edworthy has fished with his jigging taeties for both bass and walleyes for years. He has perfeeted the art with a scientific exaetness.

To begin coldwater jigging, one should know the habits of this wide-eyed predator. First of all, the walleye is a predator with a ravenous appetite. This toothy critter also prefers deep water. The depths provide him with shelter from the sun's rays and gives him a water temperature to his liking.

Coldwater walleye jiggers should concentrate on the fifteen to thirty foot depths. Most of this fish's activity takes place at these ranges. An angler starting out with jigging should also keep his structure lessons in mind. The walleye relates tightly to structure. This deep water fish will hold off points and in the bend in creek channels. The fish prefers clean bottoms with sand and gravel as a base. Combine depth, structure and bottom features and you have an outstanding walleye jigging hole.

Once a suspected jigging hole has been located, the lure must be properly presented. This is a part of Edworthy's system which differentiates from all other fishing approaches. Bill does not cast the lure, instead he merely lowers over the side. The lure is fished vertically over the side.

To use Bill's method, allow the lure to drop to the bottom. Tighten up the slack and give the lure a sharp upward jerk with the rod. This causes the lure to dart up off the bottom. Allow the lure to settle back, keeping tension on the lure with the line. Keeping tension is an important part of this fishing system. A tight line gives the angler a feel of the lure's action and also telegraphs the sensitive strikes of the walleye as he samples the offering.

A tight line is a must as the lure





Walleye, left, fell for a sonar type lure worked over the side of the boat. Fish apparently take the vibrating lure to represent a dying minnow — an easy meal! Toothy-mouthed specimen, above, went for an old favorite: a jig tipped with a piece of plastic worm — "dynamite" combo!

settles back to the bottom. Most of the strikes occur when the lure is falling. A tight line will signal the strike. When jigging for walleyes in cold water, a sensitive touch is an absolute must. Whenever the lure "feels" different, set the hook. Many times a strike will only be a hesitation in the lure's descent. A slight halt in the lure's fall should be followed by an immediate fast set with the tip of the rod. Do not try to fall out of the boat in setting the hook — the walleye's mouth is not nearly as tough as a bass'. A quick, sharp hook set will sink to hooks home. The strike has to be immediate or the fish will release the artificial.

In order for the jigging system to be effective, the angler must have a good depth finder and watch it constantly. By using the depth finder, a fisherman can cover an entire area with the same depth and gradually work to deeper water. The electric motor is a valuable tool in keeping optimum boat control. By using these two tools, a fisherman can cover a point or creek channel and not miss a square inch of potentially fish holding water.

Bill suggests starting shallow and gradually working deeper. If he starts on a point, he will begin his coldwater jigging in fifteen feet of water. He will work around a point at that depth then gradually work deeper as he keeps an eye on the depth finder. In this manner he eliminates where the fish aren't. Once a wallcye is taken, he will hold the boat at that depth and work the area out. Walleyes are a school fish and hold tightly together. Catching one walleye means there are more directly below. Don't leave an area where you have taken one until you have tried various retrieve tactics, depths and lures.

For creek channels, Edworthy chooses to work bends. He will start on the outside bend on the shallow side and gradually work his way to the middle of the channel. He then works his way back up the other side. This tactic covers all depths and structure possibilities.

Lures for coldwater walleye jigging are of three basic types. There are the conventional lead head and worm combinations. The second version is the spoon. The third model are the vibrators. Bill likes to use the jig and worm combinations for the shallower depths. He uses the heavy spoons for very deep probings. The vibrators are used in the in-between zones.

With jig and worm combinations, Bill prefers to use the nonweedless models. This gives a slight edge in hook setting qualities. He will switch to a fibered weedguard version if working a structure area with heavy cover. The fibered weedguard will allow the jig to slither through the toughest briars and branches.

Edworthy's choice of color is basic black. He will add a small amount of bear hair to the jig in very cold water to give a tad more action. The three-inch worm with a quarter to one-half ounce lead head is the preferred combination. The lighter jig is used in

shallower water and on calm days. The heavier jig is tossed into deeper ranges and used to give better feel on windier days.

For jigging spoons Bill prefers the heavy three-quarter to full ounce models. The heavy jigging spoon is great for working water in excess of twenty five feet in depth. The heavy weight gets the lure down fast. It also gives the angler a better feel of the lure and type of bottom he is fishing over. If the spoon hits the bottom solidly, then you are over good walleye bottom. It is either a sand and gravel combination or rocky. If the spoon hits softly, you are over muck or some other soft floor. This is not desirable.

The heavy jigging spoon is also great for working heavy cover. Most fishermen shy away from using it in submerged timber. The treble hook will tangle at times, but the heavy weight of the lure will actually knock itself free. If you do get snagged, give the lure a slack line and bounce the spoon up and down vigorously. This will usually bounce it off.

Edworthy prefers the bright chrome finish in spoons. He feels the shine is better detected at the dark depths of twenty five and thirty feet. The flash of the spoon as it falls back to the bottom after being ripped up gives the impression of a darting baitfish. That could be the reason so many of the strikes occur on the fall of the lure.

The real workhorse for coldwater jigging is the vibrating lure. These come in the plastic and metal varieties. The plastic versions have a flat surface on the head to catch water as it is being retrieved. This causes the lure to dart back and forth giving the impression of a fast wiggling minnow. The metal models have a solid blade body with a chunk of lead attached to the base. A treble hook is attached to both ends. These lures come in a variety of shapes and sizes.

Bill has a preference for the solid chrome models. This best imitates a shad minnow or other baitfish. It gives off the brightest flash in murky waters. It is also seen more easily in twenty or twenty five feet of water.

Edworthy uses the quarter ounce version in the fifteen to twenty feet range. He switches to the half ounce version in the twenty to twenty five feet depths. For greater depth or windy conditions, the three-quarter ounce models are employed.

The vibrators are great for working deeper water for walleyes. When they are used over the side, they give a solid feel of what is going on below. The vibrators create a lot of tension on the line. This transmits the strike well.

With all three lure types the same tackle is used. The best equipment for coldwater jigging is the spinning rod and reel combo. Spinning doesn't slow up from the cold and get stiff as does baitcasting. The guides are also larger on a spinning rod which enables the stiff line to pass more easily. The spinning outfit is also more easily used with gloves protecting the hands from the biting cold. A medium stiff rod of six feet is a good all around choice. Line size varies from eight- to twelve-pound-test, depending on depth being fished and water clarity. The lighter line gives better sensitivity at a greater depth.

Be sure to give various lure retrieves a try. With the vertical system of fishing, the lure can be worked at any depth desired. This gives the angler a chance to hesitate the lure, hop it, or bounce it in any depth water desired. Be sure to give the lure a hesitation every now and then. This represents a baitfish lying motionless and will often trigger a strike. Be sure to work the lure off the bottom. Many times walleyes will suspend two to ten feet above the lake's floor. With the vertical jigging, a fisherman can zero in on those fish and add to his stringer.

Give Bill's system of vertical jigging a try. You will add another dimension to your fishing repertoire and add a taste to your table.

Array of effective lures for cold water walleye jigging author describes.



All things come together at "The Point"



Frank Kowalski's been fishing at "The Point" since shortly after discharge from WW I. He and grandson Steve caught two smallmouth shown in photo.

by Wes Bower
photos by the author

Famous fishing holes, like good wine, sometimes improve and get better with age. So it is with one of the best known fishing spots in Southcentral Pennsylvania: "The Point," more formally known as the Fish Commission's Point Access Area.

Named for its location at the confluence of the Juniata River and the Raystown Branch, The Point is located a few miles east of Huntingdon. It is the furthermost upstream access area on the river owned and maintained by the Pennsylvania Fish Commission for use by fishermen and boaters. The property was purchased by the Fish Commission in 1962 and developed over the years. Facilities include a paved parking lot, a launching ramp for small boats, and comfort facilities. There are 8 similar access areas strategically located along the Juniata River as it flows through Huntingdon, Mifflin, Juniata, and Perry Counties to its junction with the Susquehanna River near the Clark's Ferry Bridge at Amity Hall.

Rich in Indian history, the area was undoubtedly used to a great extent by our native Americans. Fishermen have uncovered arrowheads, scrapers, spear points, and other artifacts at The Point. An old cave, located on a nearby hillside, has also given up various Indian relics to curious diggers. Early Huntingdon County folklore indicates, as well, that they were once uncovered in the "hole." The Indians of early Pennsylvania were primarily a waterways travelling nomadic group; therefore, the confluence of the two rivers was a natural meeting, trading, and fishing site.

From the early times when Indians rendezvoused at the area to the present, the common denominator with visitors at The Point has been fishing.

Webster defines the word "point" with many variations, and the term

can mean different things to different people. In our area, however, The Point has one special meaning — a darned good place to fish!

To old timers like Frank Kowalski, for instance, the word Point sparks the recollection of many a trip to his favorite spot dating back to just after World War I. Frank is 80 years young, and has had many happy memories of the area. The angling sage remembers the "long" trip from Altoona to Huntingdon when travel wasn't as convenient as it is today. He remembers the one dollar fishing license, but with a gleam in his eye, proudly displays his two dollar senior fishing license of today and claims it is still a darned good buy. Nowadays, Frank is usually driven to The Point by his son along with his "favorite fishing buddy," his grandson Steve. Steve is five years old.

Bob Hoenstine, a local school teacher, is much younger than Frank, but his enthusiasm regarding The Point is just as intense. Hoenstine can be found fishing at The Point almost every day of the year. Well known for his success as a musky fisherman, Bob claims that fishing at The Point was "never better!" With fifty or more muskies to his credit *each year,* all carefully released to fight another day, Bob is well qualified to evaluate the quality of fishing on the Juniata River. In addition to the many muskies, Bob also lands a number of fine large walleyes each year. Who can argue with this kind of success?

Old-timers like Frank Kowalski talk about the days when a good catch was made up of eels, bullheads, and rock bass. Today's fisherman can expect smallmouth bass, walleyes and muskies. The different species now abundant in the river are due to the warm-water stocking program of the Pennsylvania Fish Commission, as well as pollution abatement due to the closing of certain paper mill operations upstream.

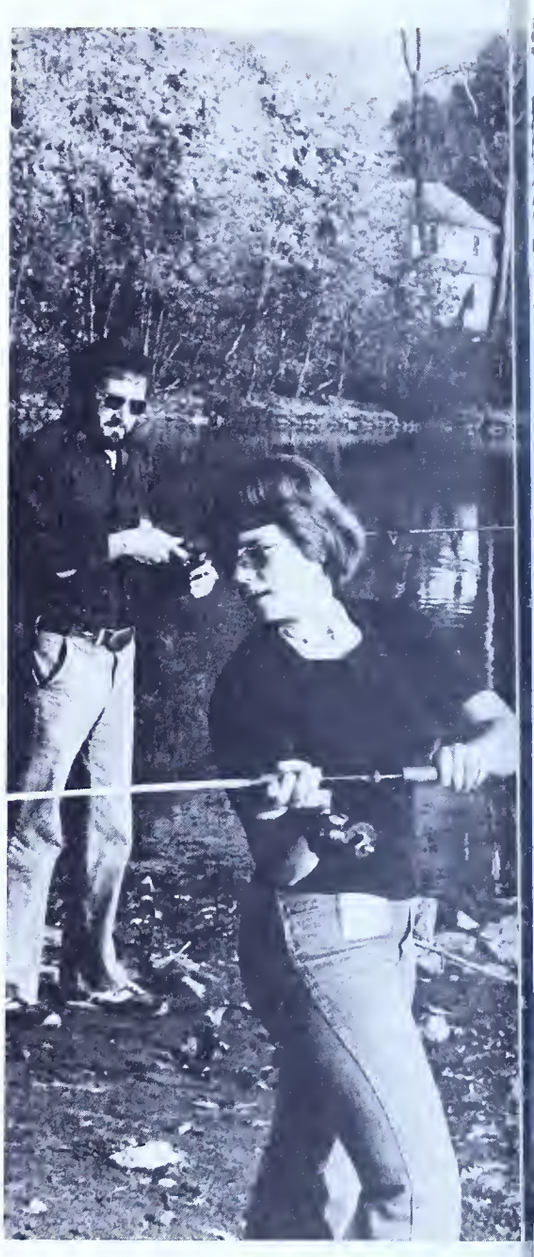
The typical fishing year at The Point begins during the early spring months with sucker fishermen congregating along the river banks. Suckers, fallfish, and bullheads are in good supply and are caught in abundance by the cool weather fishermen, most of whom are armed with hooks baited with red worms or night crawlers. Later on in the year, opening of bass season will find many anglers in search of the smallmouth. The fighting



Bob Hoenstine is an avid musky fisherman and "The Point" is one of his favorite areas. The 41½-inch, 19-pounder was released to fight again.







Above: a group of curious youngsters examine cave adjacent to "The Point." It's a favorite spot for "arrowhead hunting." Linda Walters, left, is trying to decide what the fish might be hitting at "The Point," the first of nine PFC access areas on the Juniata River. Linda Romberger and Jerry Stafford, right, are shown enjoying the fishing on a pleasant summer day.

bronze-backs, along with large numbers of sizeable rock bass, usually make up the stringers of successful fishermen. When late fall arrives, and then throughout the winter months, you can find heavy concentrations of walleye and musky fishermen lining the banks of The Point. Boat anglers also congregate to fish this stopping-off point for the schools of walleyes making their way upstream for the spring spawning run.

Although many different types of lures and baits are offered to the walleyes and muskies during the cold winter months, there are two that account for about ninety percent of the fish taken. These are the lead-headed jig weighing ½ to 1 ounce and rapala or rebel type crank baits. Favorite colors for jigs are yellow or white. Silver or gold are the most productive colors for the artificial minnowlike crank baits.

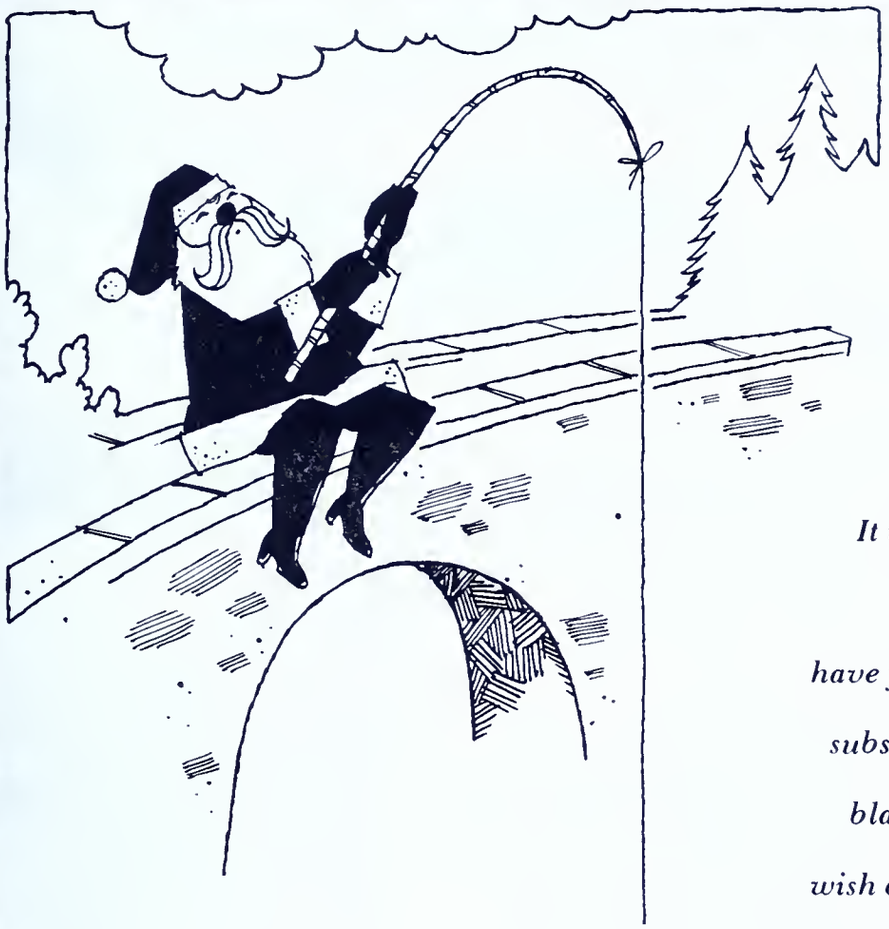
The future looks even better for fishermen who use The Point! With the giant Raystown Lake located approximately five miles upstream, the influence of this impoundment is already being felt. Some of the species established in Raystown have "escaped" downstream, and northern pike, brown trout, and striped bass are beginning to show up in the downstream Juniata River area. Several stripers in the eight to nine pound class have been taken from the river during the past year.

Huntingdon County Waterways Patrolman Jim Valentine reports that "The Point" continues to be a favorite site for young and old alike, no matter what the season. Jim comments, "The Point has its regulars who are constant fishermen on the premises. But weekends, holidays, or the early days of various fishing seasons generally produces some new faces on the 'magic triangle'."

Two large bodies of water joining to form one creates a magical influence on users of the area and when the fishing is slow it's a good time to lean back, light up the pipe, and dream of yesteryear.

Oftentimes migrating birds utilizing both waterways provide an ever-changing array of sights to further dwell upon. Valentine contends that The Point seems to bring out the best in people, and it's often a time of pleasant conversation and unhurried leisure at its finest.

However, as we reflect about the past, as Frank Kowalski does, or consider the present with the younger breed like Bob Hoenstine, we can draw one conclusion, "The Point has been a darned good place to fish for many many years." For youngsters like Frank's grandson Steve, the future looks even brighter.



If you're a traditionalist, then go ahead and give the socks, the shirts, the purses, the panty hose . . . BUT, if you'd really like to do something different, give a subscription to the Angler. It will provide year-long reading . . . long after the thrills of many gifts have faded away. Giving more than one subscription this year? You won't need blanks for each — list as many as you wish on a plain piece of paper and mail with your remittance to cover the total. We'll take care of the rest and make someone very happy this year at Christmas.

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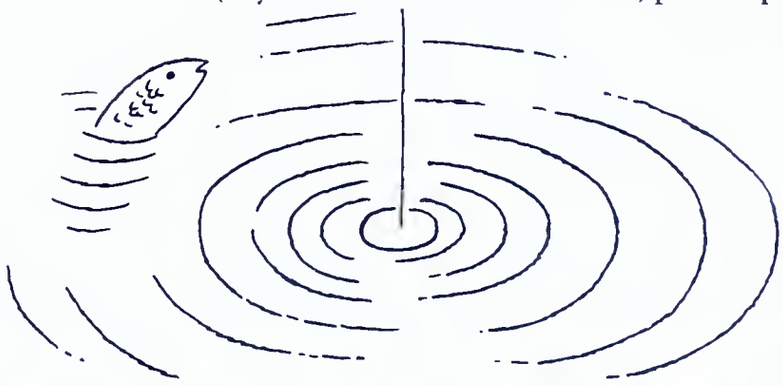
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SAFETY ON ICE

by Virgil Chambers

Boating Education Specialist

Soon many waters of the Commonwealth will be covered with a solid layer of ice and the angler will again have the opportunity to enjoy fishing, as some would say, at its best. However, ice fishermen are not the only sportsmen that will use the ice-covered waters of our state. Recreational activities such as cross-country skiing, ice skating, snowmobiling, ice boating and winter hiking will all give people a reason to gather on the frozen surface. Year after year, more and more people are venturing into the cold and finding enjoyment "on the water."

The most common question asked by these subfreezing lovers of the out-of-doors is, "Is the ice thick enough?" Ice walking or skating was always considered to be safe at four inches ice thickness. Four inches is indeed safe for a small group of skaters or several ice fishermen. But, no one should ever travel on a frozen body of water without a thorough knowledge of the condition of the ice. This requires an inspection of the ice, checking it in several places for thickness and integrity. If conditions are questionable, postpone the ice-borne activity for another time or check out another location.

According to the National Safety Council, regardless of ice thickness there are still important safety rules to follow:

Whenever possible confine your activities to established locations.

Stay off ice during thawing spells, especially early and late winter. Ice that may be safe in the morning can turn into a booby trap by afternoon.

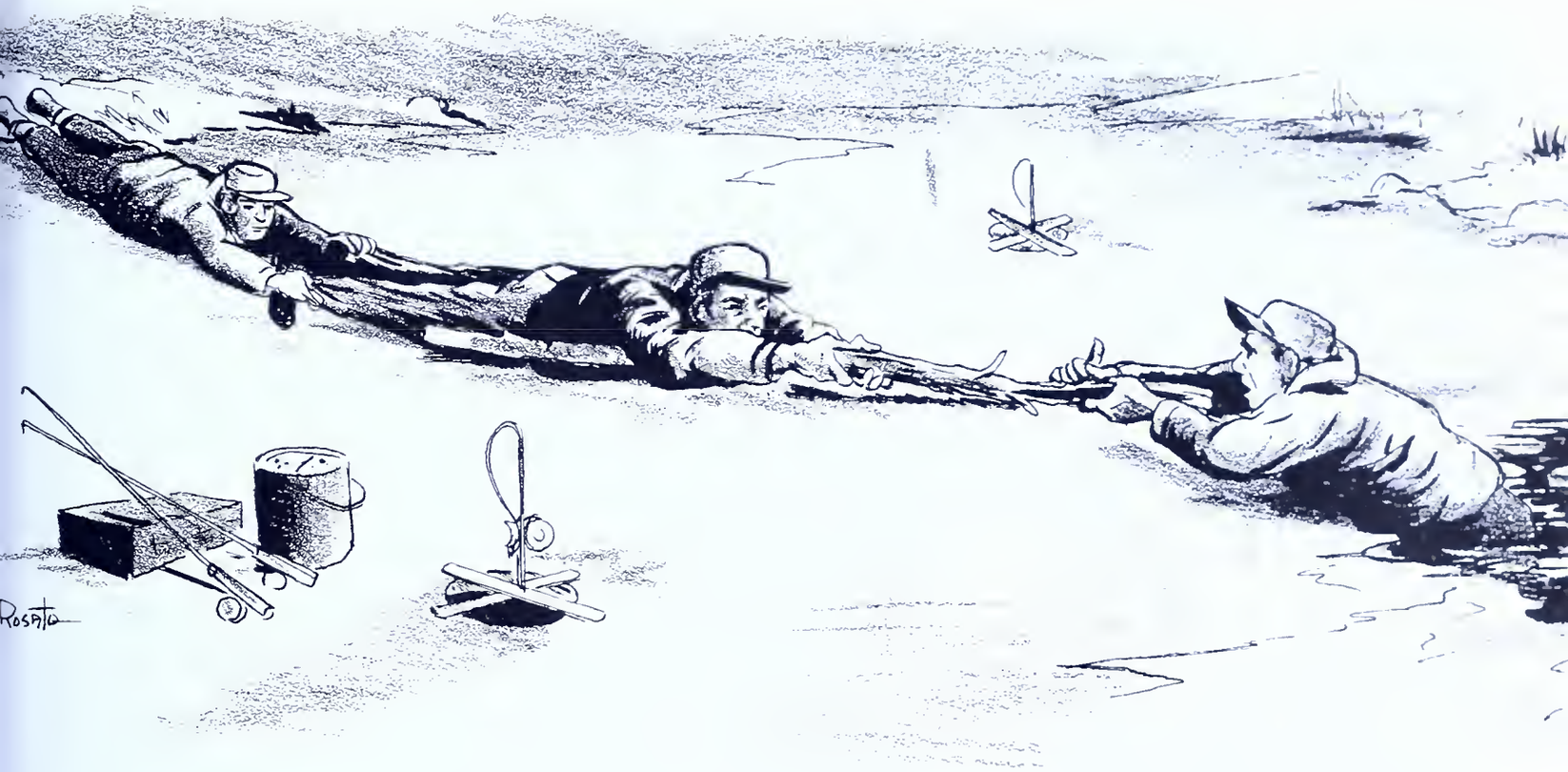
Be wary of areas prone to fluctuating water levels such as eddies and coves on rivers and streams, and reservoirs. Large sections of ice may no longer be supported by water — an extremely dangerous condition regardless of how thick the ice might be.

Avoid ice formed over running water. Currents and springs can erode and melt ice from below creating unstable or fragile ice. Dark areas of ice usually indicate this condition.

Large bodies of water can be treacherous. The ice toward the center may be extremely fragile or the water may fail to freeze at all, due to the effects of wind and currents.

Independent of how careful one may be in checking out the conditions of the ice, accidents of breakthrough still occur. A fall though the ice does not have to end up in a tragedy if one has acquired the knowledge of rescue. Clear quick thinking is important, whether self, groups, or equipment is used.

If you are the victim of a fall through the ice it is important to avoid panic and keep movement to a minimum. Minimum movement helps to retain the air trapped in the clothing which adds buoyancy to



remain afloat. Do not immediately attempt to climb out. Trying to hoist yourself over the broken edge of the ice may only crack additional sections, resulting in repeated dunkings and fatigue. You must try to disregard that initial impulse of climbing out. Instead, you should slowly extend the arms forward onto the unbroken surface, preferably in the direction from which you came across the ice prior to your fall. With a good strong kick you should be able to crawl on your belly to a nearly level position, sliding yourself forward to the safety of the supporting ice. It is best to continue to slide from the break until you are clear of the weak ice then roll yourself to safety. The sliding and rolling helps to distribute your weight evenly over a greater surface area, lessening the chance of breakthrough. If the ice does break again repeat the same technique until help arrives or until you have reached safety. A more effective way of pulling yourself up and out of the freezing water is to carry a couple of spiked objects with which to get an anchor in pulling yourself up and away from the broken edge.

All too often, when someone falls through the ice well-meaning would-be rescuers also break the ice because of a poorly thought out attempt to rescue. In assisting a victim of a breakthrough it is best to use whatever equipment is available. Items like tree branches, planks, poles, ropes or even a belt or jacket could serve as an extension to keep the rescuer clear of the dangerous break. In using an extension the rescuer or rescuers should not stand. Rather they should lay in the prone position and reach out to the victim. Remember, as in the self-rescue it is important to lie down flat on the ice to avoid concentrating the weight on a smaller surface area. Some more ideal pieces of equipment used for ice rescues — when available — are ladders and small flat-bottomed boats. In using a ladder, again lie flat and extend the ladder to the reach of the victim. The flat-bottomed boat and three individuals can make a very effective rescue. One person enters the boat arms hanging over the stern, body spread flat parallel along the craft. The other two men carefully slide the boat to the victim. Once contact is made the victim can possibly enter the craft over the stern or the boat can be slid back bringing the victim up and out of the dangerous hole of cold water.

A more common setting is a fall through the ice and no available rescue equipment nearby. In this case it may be necessary to form a human chain. To form the chain, several rescuers are needed. The rescuers, by lying flat on the ice, hold onto the ankles of the person ahead of him. Ideally, the lightest person should be closest to the victim. Together they can work their way toward the victim. After making contact and placing a secure hold on the victim, the lead individual signals for the entire "chain" to wiggle back to safety.

Equally as important as the rescue is the first aid treatment of the victim after he has been brought to safety. Ice accident victims may require artificial respiration or Cardio-pulmonary Resuscitation (C.P.R.) which should be administered only by trained individuals. If the victim is breathing when brought to safety, first aid treatment for hypothermia (cold exposure) is the next step.

Treatment for hypothermia depends on the condition of the person. Mild hypothermia victims who show only symptoms of shivering and are capable of rational conversation may require only removal of wet clothes and replacement with dry clothes or blankets.

In more severe cases where the victim is unconscious or semi-conscious, immediate steps must be taken to begin the rewarming process. Again, training in first aid is recommended.

If you enjoy the ice for your winter activity, be patient. I can assure you, we will have our frozen lakes and streams for many cold months ahead.



Considered the dean of Juniata musky fishermen, having caught over 500 muskies, Bob Cook's goal is a 50-incher!

Winter musky fishing on the

Juniata River

by David R. Thompson
photos by the author

The cold underwater world of the Juniata River in winter has the potential today to warm the hearts of anglers with the savvy and stamina to pursue Pennsylvania's largest and much coveted gamefish, the trophy muskellunge.

The river's reputation grows steadily each winter when muskellunge of 25 to 30 pounds are landed with more regularity than most fishermen realize. In fact, Central Pennsylvania musky fishermen who know the river intimately maintain the Juniata in winter has become *the* best place to fish for trophy muskellunge.

And when do muskies bite best? "Bright, sunny days are best and we get the most action between 10 a.m. and 2 p.m.," Stydinger says, adding that it isn't necessary to be on the river at daybreak when, in his experience, not many muskies are caught.

It isn't unusual to find musky fishermen plying their trade on the Juniata while everyone else is rushing to complete Christmas shopping. Last year on December 23 at least ten muskies were caught. And on New Year's Day musky anglers know how to celebrate: they go fishing, of course!

Accomplished Juniata River musky fishermen have become conservation-minded and usually release fish under 36 inches. "I never thought I'd see a day when people would be contemptuous of a thirty-six inch fish," Owens says. "Today these good fishermen are putting them back in the river."

It is this unselfish attitude of fishermen that will help the Juniata River to remain the trophy muskellunge fishery it has become. It is a river offering challenge and those who know it best are certain that the greatest trophy musky of them all is lying like a log at this very moment waiting to warm the hearts of winter fishermen.

Now this is no boast. Besides, Juniata River muskellunge fishermen have no reason to stretch the truth. They have spent hundreds, nay *thousands* of hours learning specialized musky fishing skills and their quarry's habits. When they compare this river with other musky hot spots in the United States and Canada, their conclusion is unanimous: the Juniata is best. They both sight and catch more muskies in this Pennsylvania river than elsewhere.

The river is a constant source of happiness and surprises for Dick Owens, the man who stocked the first muskellunge fry in the Juniata in 1965 and who doubted from the beginning that anything worthwhile would result. "I was skeptical about it developing into the major fishery it is today," he admits, glancing toward the mounted muskellunge heads on the wall of his South Central Division Fish Commission Headquarters at Mifflintown where he is the regional supervisor. Now he's proud of the success of the musky stocking program. "I feel the Juniata River has better fishing now than it ever did," he says.

Owens needn't convince Ray Stydinger of Thompsontown about the river's excellent musky fishing. Stydinger was among the original handful of anglers who accepted the challenge of musky fishing when the stocked fish grew to legal size (30 inches). Last winter he caught a 34½-pound muskellunge in the Juniata.

The fact that the huge fish was taken during winter didn't surprise Stydinger, because for years winter fishing has produced the largest muskies. "November 1 is when I consider musky fishing really starts," he says. "We fish when it's so miserable it isn't fit to be outdoors."

But the rewards of catching muskellunge are worth the pain. Muskies aren't caught on every outing, of course, but they are observed following lures or caught on enough days to make any outing promising.

It is the promise of catching a monster musky that brings Bob Cook of Lewistown to the river during winter when most men are relaxing in the warmth of their homes. Many consider Cook, 61, dean of Juniata River muskellunge fishermen. He has caught over 500 of them. Last winter alone he took 30 legal ones, seven in one day. "All I want now is a 50-incher, and there are some in here," he says.

While Cook and Stydinger are two of the river's most experienced and successful musky fishermen, Mike Brown of Thompsontown RD represents the new breed of Juniata River musky angler. Brown's accomplishments in the 3½ years he's concentrated on catching muskellunge border on phenomenal. Last winter he took his 100th musky, and he remembers it well.

"It was the last day of the season and I needed to catch five muskies to meet my goal of thirty for the year," he says. He not only reached his goal,

Muscollonge in the Susquehanna

A few years ago, the Commission began the experiment of planting muscollonge in the Susquehanna River. Within the last or two (sic) a few of these fish have been taken, enough to give encouragement that they may be established eventually, if planting can be persisted in. Unfortunately the chief difficulty in the way is the securing of eggs or a few mature fish for breeding purposes.

(Excerpt from Report of the State Commissioners of Fisheries 1899.)



Bob Cook ties on lure for a day of winter fishing. Gaff he uses for those he keeps leans handily on his tackle box.

he caught his largest musky ever: a 43-incher weighing 25 pounds. His exuberance that day echoed up the river near Lewistown.

For most fishermen the goal of catching that many muskies in one day — on the last day of the season no less — would be too unrealistic to be considered. Brown, however, is no average angler. His dedication, persistence and confidence are so strong that he believes he'll catch a musky on every cast. It's this attitude coupled with a vigorous, "no-nonsense" fishing style that has elevated him to a high fishing stature in so short time.

While these three experts have the advantage of knowing where and how to fish, they agree that muskellunge are spread throughout the entire Juniata from the Raystown Branch down to the Juniata's confluence with the Susquehanna River near Duncannon. The Fish Commission's access sites are good places to start musky fishing. Where creeks flow into the river also often hold muskies, particularly the mouths of Cocolamus, Jack's and Tuscarora Creeks. Knowledgeable anglers explore the eddies along shore and don't overlook the water behind the bowling alley at Lewistown and at the "cinder dump hole" there.

It was formerly believed that Juniata muskellunge preferred only quiet, slow-moving water and that fishing for them in swifter water was a waste of time. This, however, has been disproved. "Half the winter fishing is no good from shore because the river's too low," Stydinger says. "When the water's low, I like to take a boat out and anchor and fish. We used to think muskies didn't frequent current, but they do. Once I caught five fishing the current in the middle of the river."

For this type of winter fishing, they use the bass boat that Brown remodeled for musky fishing. "We take hot dogs along and cook them right out there in the boat," Brown says. "It's a lot of fun; but the important thing is to know how to handle your boat well. Boating safety in winter — when the water's cold — is vital."

Considering that winter anglers are fishing current, eddies, access sites, and mouths of creeks, just where the next trophy musky will be caught is anybody's guess. It could be anywhere, thanks to a stocking program where musky fry or fingerlings are released nearly annually. This means there are a respectable number of these predators available for the increasing number of anglers becoming interested in winter musky fishing.

"There's far more utilization of the resource now in winter — especially in the last three years," Owens says. "However, the Fish Commission isn't concerned about the muskellunge being wiped out." The reason is the successful musky propagation program pioneered in Pennsylvania can continue to supply fish for stocking. "We don't know if the muskies are reproducing in the river or not," he adds.

"Most of these fish are harvested from shore and winter caught fish

seem a bit bigger," Owens continues. His observation coincides with that of Bob Cook who helped release the first Juniata River muskies. Cook says, "Ninety percent of the muskies caught in winter are females, and they're full of eggs. I caught one that had two and one-half quarts of eggs. It may be that these egg-filled females need more to eat, so, more are caught."

Cook learned to catch muskies by making mistakes. "I lost the first eleven I hooked before I landed one. My line was six to eight pounds which was too light; now I use fourteen pound.

"Another important thing is to use a stiff rod, except for the tip which should be limber, so that you can set the hook. When you feel a hit, you'd



A dependable lure for cold weather Juniata musky fishing has been a white jig with a bucktail skirt and tailing a rubber night crawler.

better pull hard about three times. I've had muskies I thought were hooked swim around for ten minutes then open their mouths and out came the lure. They just weren't properly hooked."

Using this equipment and fish-hooking method, Cook landed the 30 legal muskies last winter. All were caught on white jigs with a red rubber worm and attached to a six-inch wire leader. "I don't just cast out and retrieve; I make the lure act crazy," he says. He imparts action to the jig by pumping the limber rod tip up and down with wrist and forearm movements as he retrieves the lure close to the river bottom.

There is no argument about the jig



Ray Stydinger, left, and Mike Brown carefully select the "lure-of-the-day."

being the best producing cold weather musky lure. "In the winter, they're good," Stydinger says, "but in summer, *forget jigs*. If you're fishing jigs properly, you'll lose twenty to twenty-five a day because they'll hang up on the bottom. I lost 180 to 200 jigs last winter. But the good thing is seven out of ten times if a musky follows a jig, he'll take it eventually. You have to keep fishing for him."

Ed Amey of Thompsontown, who caught 17 muskies last winter and who fishes with Stydinger and Brown, says a musky won't waste energy in winter chasing a lure and then not take it. On the other hand, Stydinger notes that these fish porpoise more in winter and when porpoising they don't hit lures apparently because they aren't feeding.

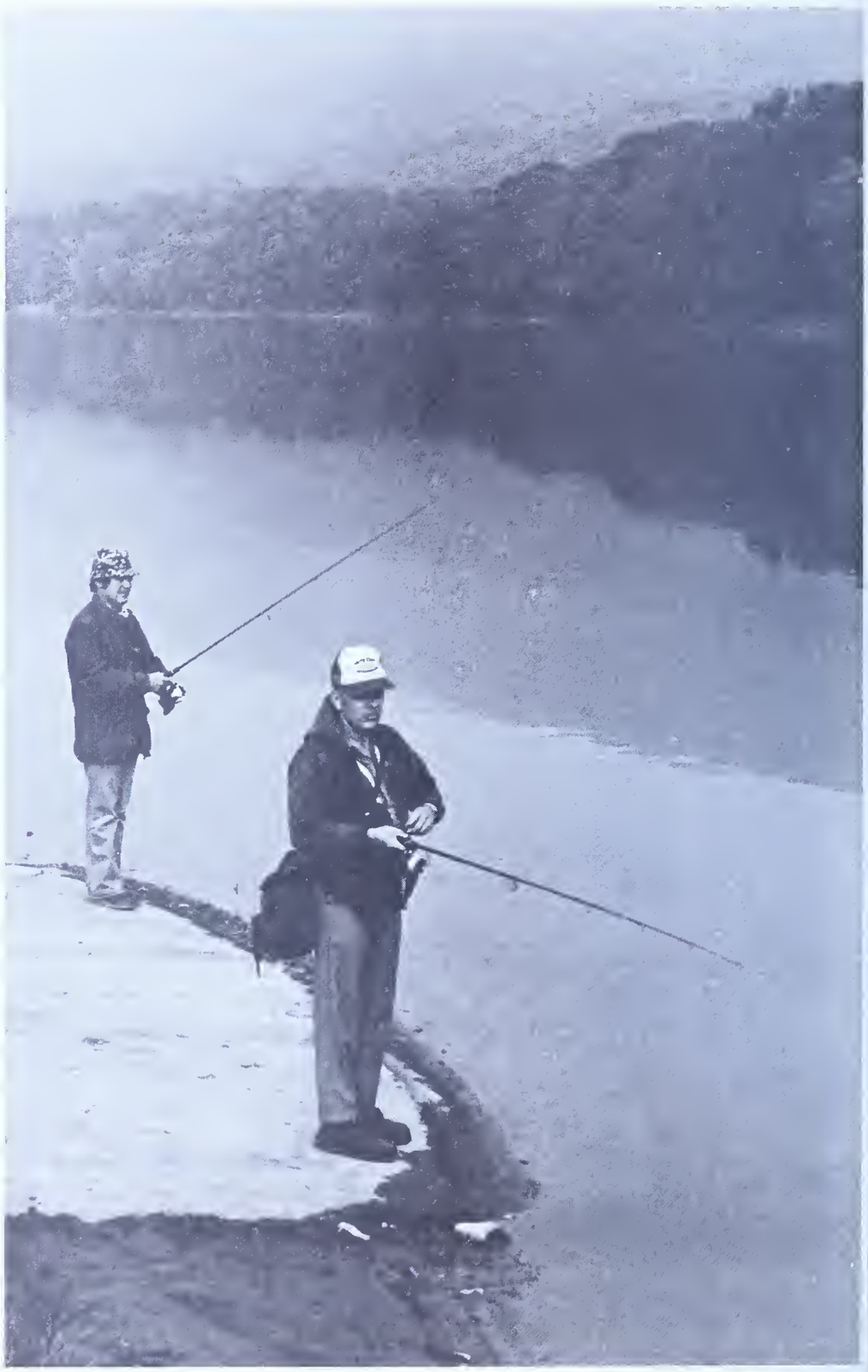
Lead-headed jigs weigh three-eighths to one-half ounce. Stydinger prefers a fine wire hook because it is sharper and easier to unhook. The skirting he uses on the jigs is generally deer tail. Cook uses a Mister Twister for skirting. Common jig head colors are white, black, red, and yellow.

Before anglers realized how productive jigs were for muskies, they used plugs of about seven inches and these also caught fish. A double-jointed orange Rebel was a favorite as were silver plugs that more closely resembled live fish. Such plugs still catch their share of muskies but for the time being the "jig is up."

Stydinger says fishing a jig causes the line to twist so he uses a bead chain on the line to reduce twisting. "I use a wire leader only when the water is dirty," he says. "I feel I hook more muskies without the wire leader. Someday, however, I may lose a big one by not using wire leader because hooked muskies do a lot of rolling." They also sport a mouthful of sharp teeth.

He and the others use rods of six to six and one-half feet and open face reels with 14- to 17-pound monofilament line. Their rods have ceramic guides and Amey says he waxes them to prevent freezing.

The adage "you can't judge a book by its cover" applies to fishing the river in winter. In late winter, especially, it can be dirty with soil and debris washed into it by melting snow and rains that cause the water level to fluctuate. Despite the unpicturesque water conditions, muskellunge are caught and to musky anglers that's the important thing. Stydinger says, "I've changed my mind about fishing dirty water. We had some good days fishing it, though the fish may not see the jigs as well."



Stydinger and Brown, both of Thompsontown, fish for muskies at the boat ramp at the Muskrat Springs Access Area. Muskies are caught every year from this popular fishing place. Weather is typical of winter days.

Then there is ice. It floats downriver in cakes and sometimes locks up the eddies and access sites. But, no matter, muskies will still be caught in the pockets of open water near shore.

There are many comfortable winter days when the weather is conducive to fishing. Yet, as Owens comments, "Musky fishing in winter isn't for the faint at heart. You must be properly attired and equipped with cold weather gear." Some anglers wear snowmobile suits and soft leather gloves.

Editor's note:

Last month we promised to share with our readers Art Byerly's prediction that the new State Record Muskellunge would come from the waters of Conneaut Lake. Although we've received similar predictions favoring Pymatuning, Kinzua (which has already provided a new State Record Walleye and a Northern Pike), and Lake Marburg, here is Art's prediction, excerpted from a recent letter. Art, by the way, caught the second largest muskellunge taken from Commonwealth waters in 1978 — a 51-inch, 35-pounder.

". . . you may be hearing from me again — there is a musky over 50 pounds in Conneaut Lake that my fishing buddies and I have hooked onto, but lost. He is always in the same area and has hit just about every type of lure there is. He has broken rods, lines, and hearts. Ted Fitch hooked him, and ended up with a plug and 3 inches of mouth skin attached to it. Novotny has also tangled with this monster and lost. The time I hooked him, I was doing fine, until I decided to use the 'pump and crank' method to take some of the pressure off the reel (after a 45-minute fight).

"When I was lowering the rod, and cranking, I lost him. I guess I didn't keep enough pressure on the line. I just sat there for about five minutes, with numb arms, trying not to cry. As I said, you may be hearing from me again because I sure plan to go after him some more. I feel he may be a new State Record — if anyone can ever get him to the net!"

IN THE EAST —

Pennsylvania anglers have been having tremendous success fishing Commonwealth waters for the mighty muskellunge and, if you've been following the ***Angler's*** pages, you can see the good fishing hasn't been confined entirely to the northwestern section of the state. Author David R. Thompson's account of the activity along the Juniata River, this issue; the success of musky men like Byerly, Fitch, and Novotny in the Northwest; Charles Glass' 50-inch, 39-pounder from Lake Marburg along Pennsylvania's Southern Tier . . . makes you wonder where to go, doesn't it?

Not to confuse the issue, but rather to illustrate just how close to home good musky fishing might be for each of our readers, we're delighted to show what the Delaware River offers eastern Pennsylvania musky hunters: Kurt Hagemann's 45-inch, 26-pound muskellunge, taken in the heat of August near Shohola, in Pike County.





"OUT WEST" . . . LAKE ARTHUR —

Robert A. Parsons, below, had his hands full with that trophy, a 46-inch, 25-pounder. The fish fell for a musky tandem.



JUNIATA'S FOR EVERYONE!

Brian Hack, of Mifflintown, took that 42½-inch, 21-pound musky from the Juniata when he was but 15 years old. Brian, left, was fishing a jointed rebel.



Lake Wilhelm's Panfish

by Richard E. Faler, Jr.
photos by the author

"Get ready," I thought to myself, arm muscles tensed and my senses alerted for the next hit. The red and white bobber bounced once and then started gliding through the water. Line tightened, I heaved back, "Sock it to him!"

A hefty bullhead bulldogged his way through some thick weeds five feet down. I kept the line taut against his pulsating throbs until he worked himself loose, then worked him up to the boat. I grasped the line a foot above his mudpuppy mouth and hauled him aboard.

Grabbing the bullhead so he could be unhooked was done carefully as he was still flopping back and forth, exposing his sharp spines. He was finally added to the stringer along with a collection of others . . . other bullheads, crappies, and bluegills.

These panfish are all of good size and are quite numerous in Lake Wilhelm in Mercer County. This young reservoir which is managed for the angler, no motor over 10 horsepower allowed, is best known for its initial pike flurry, and recently, for bass and its coming walleye fishery. Muskies grow large here and stockings of striped bass and channel cats have taken place, but little results have been noted thus far.

There are quite a few pike in this reservoir. Natives of the watershed, they experienced an immediate population boom with the flooding of the reservoir. A few years ago it was common to catch thirty to forth pike in just a few hours. These fantastic catches, however, were comprised of twelve- to twenty-inch "hammer handles."

Pike are still in the lake in good numbers and one can catch legal size ones now just as frequently as the smaller models, but you have to work for them. "Easy" pike are no more.

The muskies in the lake are found in all sizes with a fair share of biggies being landed. Muskies are muskies wherever you go; Wilhelm's muskies are as few and far between as anywhere.

Bass fishing is good in this lake. An excellent variety of cover, both on shore and in deeper flooded structure, contribute to Wilhelm's bass fishery. The upper portion of the reservoir, above I-79, is an area of flooded trees and of water weeds, a challenging mecca for any angler.

One of the up and coming gamefish species are the stocked walleyes. This year has seen large numbers of sublegal walleyes being caught. Anglers report catches of a dozen to three dozen, all an inch or two shy of keeper size. This is reminiscent of the past pike flurry. A few scattered catches of twenty-inch-plus walleyes, along with the multitude of little fellows promises good walleye fishing in the next couple years.

"Wait a minute," you're saying, "what about the panfish? What do the pike, walleyes and others have to do with *them*?" Quite a bit. Despite the past and present status of the game species in Lake Wilhelm, it is the panfish that are drawing more and more angling pressure each day. As already mentioned, the big three in the lake are bluegills, crappies, and bullheads. All are numerous and of good size. This wasn't always the story, however.

Fisheries managers will tell you that the biggest danger to good panfishing





You name it, Wilhelm's got it! Anything from a nice stringer of bullheads, opposite page, to northern pike, above left, baskets of crappies, above right . . . plus palm-covering bluegills, below, all good eating.



in a body of water is too many. They overpopulate until their sheer numbers make them uncontrollable. The next thing that happens is that the body of water is full of stunted panfish — out of balance with the predators.

The game speeies in Lake Wilhelm, pike, bass, walleyes and muskies, are not all large. They are very numerous, though. I would venture to say that the predatory fish of this lake are twiee as abundant as those of Pennsylvania's other lakes and reservoirs. These many gamefish are a blessing to the panfish fisherman by keeping enough of these forage fish in their bellies to prevent stunting. The result is a healthy population of large sized panfish.

The bullheads, like the pike, experieneed an initial boom in numbers that resulted in a stunted population. Five- to six-ineh bullheads were the rule. The predatory fish took over, however, and this year saw this small average size inerease to nine inehes. With the numbers and sizes of some of the Lake Wilhelm bullheads being caught, there is even some serious speeulation that the next state record for this speeies will be eoming from there.

The entire lake is good for the bullheads. They hit on the regular baits, worms and minnows. They are even a nuisanee to pike fisherman who are surprised to find them readily taking pike-sized shiners.

The bullheads of this lake seem to vary in their aetions somewhat from those I have observed in other waters. One observation of peeuliar behavior oecurred on a bright late morning in elear water. I was popper fishing for bluegills on their spawning beds. Several times I watehed a loose school of half a dozen good sized bullheads eruise into the shallows, like so many sharks, and feed. These fish were as wary as any brown trout, and retreated helter-skelter at the slightest movement or the elose splash of a fly. Night time is eatfish time, but Wilhelm bullheads feed twenty-four hours a day.

The bluegills and erappies seemed a little slower in numerieal growth than would be normal. The spring of '78, however, found them reaehing large numbers. The bluegills are hand-sized and the crappies larger. Many limit eatches of 50 per angler have been taken in an evening of fishing.

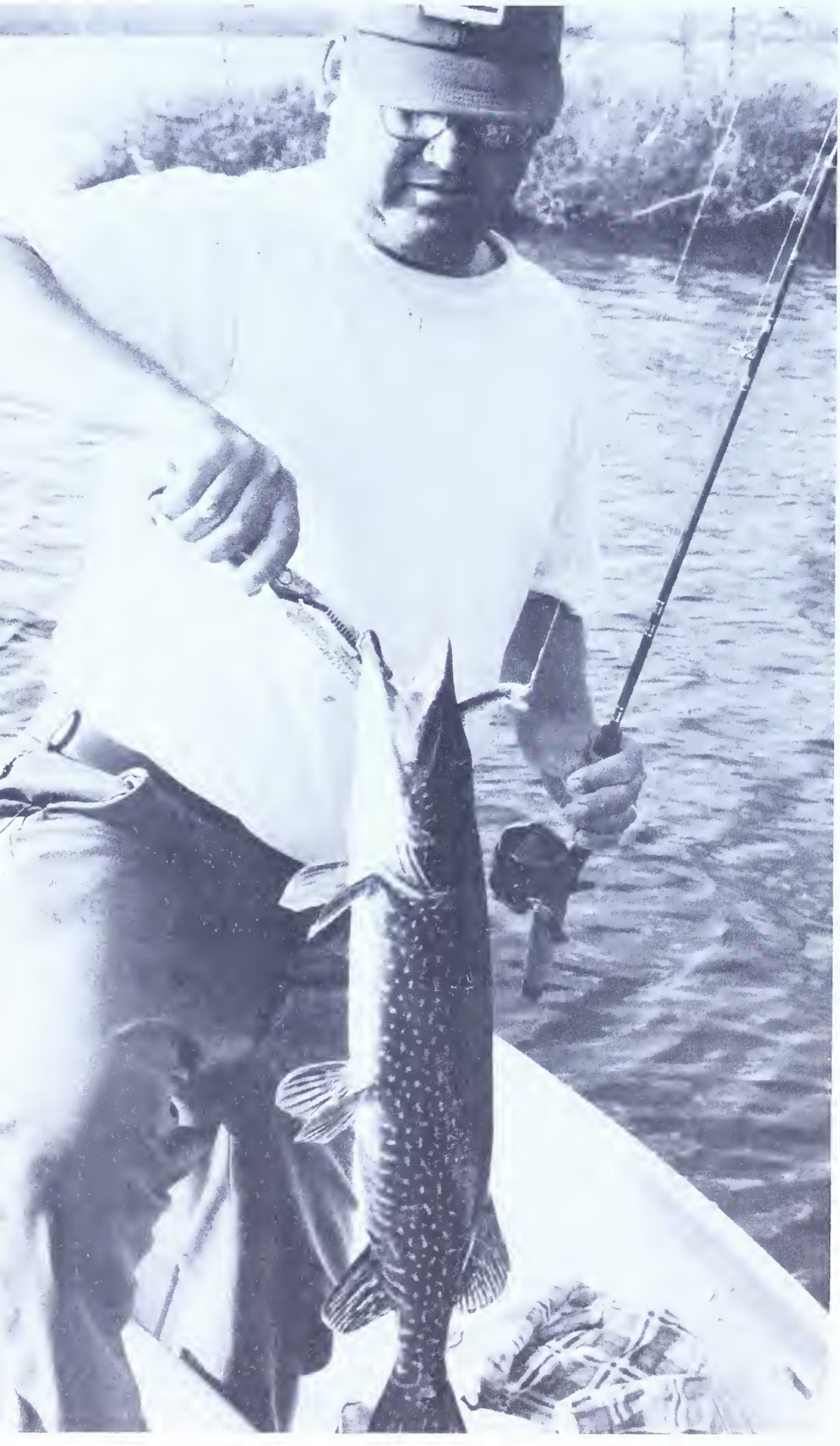
Bluegills and erappies are taken easiest during spawning. May finds the erappie in the shallows, espeeially west of I-79. They take a week or two and work their way gradually into deeper water for spawning. At the beginning of their run they are scattered. As the spawning urge takes hold and they move to deeper water they gather into sehools. The erappies ean be diffieult to eateh until these sehools are loeated. The main eauseway next to the bridge and eover next to some of the bays are good starting plaees. Onee in a sehool, the fishing is fast and furious. Favored baits are the old-time standards, minnows and jigs.

The bluegills start taking over before the crappies fade out. Late May and on into the summer will find them in the bays spawning. The males will be on the beds in shallow water. Just before and during spawning many can often be loeated in deeper water at the mouths of the bays.

Worms and mealworms do the trick for the big bluegills. Small poppers on a ealm evening can add zest to the eateling, too.

I eannot say that Lake Wilhelm is a panfisherman's Paradise . . . Wilhelm has its share of foul weather, baking sun and mosquitoes. I can say, though, that Lake Wilhelm is "The Plaee" to go for panfish.

"Fishing does not have to be complicated or expensive"



Economy Fishing Outfit

by Frank Lucas

Husky northern pike seems to prove author's point: handled properly, even the less expensive tackle provides great fishing fun!

In today's world of runaway inflation, when a boat and motor can cost thousands of dollars, a good rod and reel can run well over a hundred — fly rod outfits, some of them, much more — and the "experts" are proclaiming that thermometers, barometers, depth finders, and other expensive paraphernalia are absolutely necessary for sure-fire fishing success, one often wonders, "Is this really the kind of sport I'm interested in?" or "Why can't fishing

be less complicated and not so expensive?"

Well, I'm one person who doesn't believe that fishing success is regulated, or even influenced by the amount of equipment accumulated or the amount of money that can be spent on it. Fishing is for everyone, not just the pros who fish year-round, but the average person, who, because of family and job responsibilities can only fish one or two days a month at most, or maybe gets only a couple of chances a year to wet a line. Fishing should also be in the reach of the countless small boys and girls who would really like to fish, but after reading some accounts in sporting magazines are convinced they need an expensive boat or graphite rod to really enjoy it. Not so! Fishing does not have to be complicated or expensive.

While I take my fishing seriously and go at it hot and heavy, spending copious amounts of time (and far more money than I care to mention), I don't own a boat and motor, but have several rods and reels plus a tackle box loaded with many more lures than I can ever hope to use, or need, and yet when I go off for a few hours of fishing I invariably take only one rod and three or four lures — all that's really needed.

My fishing is confined to small creeks and farm ponds — water that is well within the reach of everyone and yet contains a lot of fish. This kind of water is normally shallow and can be fished with only a minimum of tackle and is much easier for a beginner to work. Most of this water goes unfished and more fish die of natural causes than succumb to a fisherman's lure. The novice can forget about boats, motors, etc. and just concentrate on fishing which is all he or she should be doing anyway.

Most experts exhort the beginning fisherman to purchase the best equipment they can afford, and this is good advice up to a point, but any beginner should be absolutely sure that they plan to do a lot of fishing before spending a lot of money for equipment. In other words, start as simply and as economically as possible. I believe this so strongly that I decided to prove my point by putting together an economy fishing outfit, something suitable for the occasional fisherman or the tyro just starting out. After a lot of thought, I decided to limit myself to spending twenty-five dollars or less. Not much money at today's prices. After deciding on how much money to spend I now had to decide on what kind of outfit to put together, casting, spinning, or spincasting. A good casting reel costs considerably more than twenty-five dollars and a spinning reel can sometimes be difficult for a beginner, so it looked as if a spincast reel of some type offered the most possibilities.

Once I settled on a spincasting outfit I started shopping around for the best bargain I could find. After a lot of looking I decided that one of the combination rod and reel packages sold by nearly every manufacturer might prove to be my best bet, and finally purchased a "combo pack," consisting of a spincast reel and a six-foot fiberglass rod, spending just under eleven dollars. Most large discount stores feature specials in the spring of the year to kick off the fishing season and this is how I was able to get the combo pack as cheaply as I did. If it's a bargain you are looking for this is the time to get it.

My rod and reel purchase left me with a little over fourteen dollars to spend for lures. Now, any fisherman worth his salt will tell you that having only fourteen dollars to spend for lures is hardly worth leaving home over, but I left anyway. With so little money, there was no choice but to limit my lure selection and keep it as simple as possible. Only two types of lures were bought, crankbaits and jig-spinner combinations. These two types of lures have a lot to offer, they work under a lot of different conditions and are among the simplest to use, merely having to be cast and retrieved to be effective. The floating crankbaits can also be used as topwater lures, giving you one more option. Four crankbaits and three jigspinners cost me twelve dollars and fifty cents, bringing the total price of my economy fishing outfit to just under twenty-three dollars.

My first chance to use the rig came when I made an early spring trip to Canada and decided to take it along. The combo got a thorough workout on this trip as it was in use from early in the morning to late in the evening for three and one-half days, catching many walleye and northern pike. The largest fish caught was a nine-pound northern that gave me quite a tussel before I landed him. After this trip I was convinced that my economy outfit could take it and would land most any fish I was likely to run into.

The rod and reel was used a few times during the summer, mostly on trips to farm ponds where a few fish were caught, but I never really got around to giving it a good workout on bass, until recently when I headed for a small creek near home, looking for smallmouths.

Arriving at the creek, I headed for a hole that had provided some nice smallmouth bass in years past. Tying on a crankbait, I tossed it out into the water and began a steady retrieve. When the first few casts brought no strikes I started working the lure in closer to a submerged log until the lure was almost bouncing off it. This did it! A smallmouth nailed the lure and the struggle was on. The bass made several runs up and down the hole before I was able to get a hand under him and flip him out onto the bank. Snapping the bass on a stringer, I continued to fish, but had no more takers. The next hole upstream yielded a small bass and provided the only action here so I moved on.

The next spot turned out to be a regular honey hole as I caught four bass in a row before losing the fifth one. A bass nailed my crankbait on the first cast at the next hole and immediately broke my line. In a little over three hours I had caught my limit of smallmouth bass, had one break my line, and in general had a heck of a lot of fun.

After using the combo over the summer I'm convinced more than ever that it's a good outfit, too, for the beginner or occasional fisherman. Granted the rod is not as finely finished as some and the reel is not the smoothest in the world, but it works and didn't cost a lot of money. This would be a good outfit to use to introduce the wife and kids, or a friend, to the wonderful world of fishing. It's easy to use and there should be no problems with entangled line such as can occur with casting and spinning outfits. When I bought the outfit I thought I would wind up giving it away, but I've gotten kind of attached to it, so it and a few lures are now stowed behind the seat of my truck. Now, whenever I'm close to a farm pond or creek, and have a few hours to fish, I have my fishing outfit handy and can hit it.

Gadgetry in Fly Tying

by Chauncy K. Lively
photos by the author

Despite the availability of fly tying materials in seemingly endless variety — of animal, mineral and synthetic origin — and special tools for nearly every aspect of fly making, the fly dresser is constantly on the alert for wonderful new stuffs and gadgets to try at the workbench. Nothing that passes through his household escapes scrutiny. Shiny, colorful Christmas ribbons take on a new meaning; kitchen gadgets are examined for potential usefulness and the soft underfur of the family cat seems to hold promise. And inspiration is sometimes derived from the commonplace — like milady's apparel.

In the early days of the Pittsburgh Fly Fishers' Club it was usual practice to split off into small groups following our meetings, forming individual bull sessions in which weighty matters (to us, at least) were debated far into the night. One evening Don Lynn and I got into a discussion of fly tying threads, wishing for a strong thread of cobweb thinness with which the tiniest midges could be dressed without bulk. It was a Utopian wish; at that time only silk threads were available down to size 8/0 and the fine-gauge Danville nylon threads had not yet appeared.

At the following meeting, a month later, Don arrived with a glib smile on his face and a cigar box tucked under his arm. In the box were several spools of the finest thread I had ever seen. Buff-colored and flat in construction, it was remarkably strong for its diameter and far thinner than the 8/0 silk thread we had been using. Don related how he had conned his wife into donating a pair of nylon hose with which to experiment. He found that if he cut off and discarded the elastic top he could pick at the severed end of the stocking until he found a continuous strand. This he attached to an empty spool which in turn was affixed to an electric drill. When the drill was activated the body of the stocking seemed to melt before his eyes as it was transferred in a single, unbroken strand to the rotating spool.

I still have a spool of Don Lynn's superfine thread and it gets more than occasional use. Its only fault is its tendency to fray easily on contact with rough fingers, rendering the manual whip-finish impractical unless one's skin is perfectly smooth. But that's a small price to pay for the thread's unique utility and pre-waxing helps to reduce this disadvantage.

Two of my most useful tools are dentists' picks which I found on an odds-and-ends table in an army surplus store. One has a curved, crook-type point while the tip of the other is short and at a right angle to the shaft. Both are handy for half-hitching in tight spots, permitting the loop to be seated with precision. I use the curved point for spinning fur in the loop method of dubbing and both are ideal for picking out dubbed bodies. Of course, tools of similar utility could easily be made by forging needles to the desired shapes and setting them in shafts of wooden dowels.

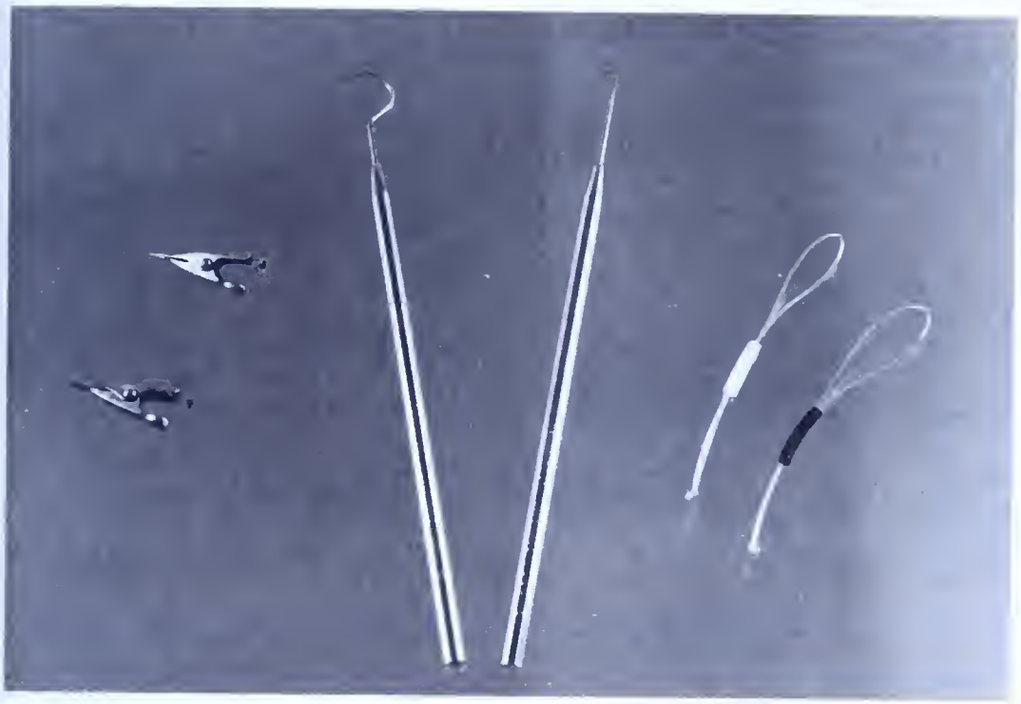
There are operations in fly tying for which the tier never seems to have enough hands, particularly when tail whisks or hair wings must be cut and put aside for use in a later sequence. I once used clothes pins to temporarily hold these materials but their jaws are not precise enough for firm gripping. Ideal for this purpose are small, spring-loaded alligator clips commonly found in electronic supply shops. Those with smooth, unserrated jaws are best.

In our October column we briefly described a homemade gadget I call a Snubber, which acts as an extra hand in manipulating deer hair. It is constructed by doubling a six-inch strand of heavy monofilament and inserting the ends through a short plastic sleeve. The ends are then knotted to prevent the sleeve from sliding off. In use, the material to be controlled is ensnared in the monofil loop and locked in place by sliding the sleeve to the material. In addition to handling hair, the Snubber has been useful in various other operations such as temporarily holding nymph wing cases in place and the sloping of wet fly hackle. Certain wet fly patterns require that the hackle slope or lay back along the hook, and while the barbs may be held back with fingertips, the furrows between the closed fingers sometimes permit the barbules to bunch. Held down by the Snubber as illustrated, the depressed barbs are arranged uniformly around the shank while a few turns of thread are made over the base of the hackle.

Over the years I have seen quite a lot of homegrown contrivances for fly tying and have made a few of my own, but far and away the most ingenious is a brainchild of our good friend, Paul Cardell, of Birmingham, Michigan. I call it "Cardell's Magnificent Fly Machine."

Having been an electrical engineer with Detroit Edison, Mr. Cardell retired a few years ago and as a winter project in his first year of retirement he undertook the design and construction of a motorized rotary vise. Powered by a foot-activated sewing machine motor, the shaft of the vise rotates, turning the hook in unison. Thus, in dressing a fly, instead of manually wrapping body material and/or hackle around the hook in the conventional way, the material is affixed to the hook and the rotating shaft does the rest. The operator merely guides the material to achieve the desired taper, or in hackling, the required density. The rotational speed is controlled by a rheostat and may be varied from slow to fast as desired. The vise boasts interchangeable heads, with jaws to accommodate hooks for the smallest of midges to the largest of salmon flies. The heads and shaft are of phosphor bronze, all beautifully machined by Mr. Cardell. The vise — along with such convenient accessories as thread holders, extendable magnifier, waste catch-pan and tool holders — is built into a self-contained, portable unit measuring about 16″ X 20″.

As a conversation piece, Paul Cardell's vise is of the "so you think you've seen everything?" variety but it's also a tremendously practical tool that could only have been conceived by a keen fly tier and angler. Most of us will have to be content with dreaming up gizmos of far less complexity but, regardless of the scale, gadgetry is fun and a fitting adjunct to fly tying.









Top left: a few of the "gadgets" in the author's bag of tricks, all of which were originally intended for other purposes. Top right photo shows use of the snubber in wet fly hackling; dentists' picks, left center photo, are a great aid to half-hitching in close quarters; alligator clips, right center, hold odd bits of material ready for use; and, finally, at right, the ultimate — Paul Cardell and his "Magnificent Fly Machine."





CAREFUL LITTERBUG

Last spring I received a call from a concerned individual about having seen a local resident littering. The caller saw the litterbug drive onto a bridge, get out of his conveyance, walk to the side of the bridge, look into the rain-swollen creek then "carefully" look to see if anyone was watching when he removed a box of trash from his vehicle and "very carefully" dump it into the stream. The concerned neighbor not only provided a license number but also knew the litterbug and was willing to testify in court if necessary to make sure this individual was penalized for committing such a lowly act. Court appearance was not necessary as the litterbug paid the fine and costs to the District Magistrate. Thankfully, this time "careful" was not good enough to allow a litterbug to leave unseen.

Larry V. Boor
Waterways Patrolman
Mercer County

NOT QUITE!

A small boy was fussing, as kids will do, in the local bank. His older brother looked at me and said to the little fellow, "Shhh! Shhh! There's a cop!" With a snicker the restless lad replied, "Huh-uh, he's a guy who delivers packages!"

Don Parrish
Waterways Patrolman
McKean County

"UPSTART"!

While patrolling a stretch of the Juniata River on the Opening day of bass season, Deputy Waterways Patrolmen George Stetler and Ron Baker happened to come across an unusual incident. A primary function while on the river during this day of heavy usage is to check each boat to assure that the regulations are being adhered to — especially safety regulations. While rounding a bend in the river they saw what appeared to be a high speed hydroplane — far ahead — zipping across what was obviously too shallow a stretch of water for such dangerous activity!

The two officers dutifully steered their boat in the direction of the faraway vessel, hoping to arrive and put a stop to the dangerous operation before someone was seriously injured. As it happened they arrived on the spot a little sooner than they had originally planned as the "speeding hydroplane" turned out to be a 16-inch-long radio-controlled craft directed by someone on shore. The dutiful deputies continued on their way, ignoring the little upstart that had upset their routine.

Larry R. Baker
Waterways Patrolman
Mifflin/Juniata Counties

WHOOPS!

Deputy Tom Kamerzel and I were driving along the old "towpath" that parallels the Lehigh Canal in Allentown. It is a bumpy old dirt road with many water-filled potholes along its course. We noticed two young lads fishing in the canal and stopped to ask if they had caught anything. They said "Yes, we did, but you just ran over them." One boy ran back to the pothole we had just driven through and started feeling around the now muddied water in an attempt to retrieve his fish. We went over to help him out, but it seemed as though most of the dozen or so sunfish that the boys had stored in the pothole came through OK. A couple, however, did wind up looking like flounder.

Fred Mussel
Waterways Patrolman
Lehigh County

HAD TO HURRY?

Recently I apprehended an individual for a violation of the boat law — not having any personal flotation devices on board his boat. There were four persons on this boat including two children of the defendant. He told me that he just bought the boat and didn't have time to buy any personal flotation devices and he became very upset when I told him what the fine was. I wonder how upset he would have been if he had had an accident — knowing that he had not taken time out to buy any PFD's.

Robert L. Kish
Waterways Patrolman
Cambria County

GOOD EXAMPLE —

A recent letter from a close friend of mine, Indiana Conservation Officer Ronald Sclight, related the following incident:

Ron, his wife Kathy, daughter Allison, and her dolly, "Teresa" were backpacking and canoeing in Minnesota. When the trip started they explained to their three-year-old daughter that they would have to *wear* "life preservers" while they were in the canoe so if they fell out they would float and not get hurt. Allison readily accepted this and then insisted that "Teresa," the dolly, also be equipped with a "life preserver." As they entered each stretch of white water all were checked to make sure the life preservers were properly fitted and worn. In a rough stretch of water, "Teresa" was thrown from the boat but was recovered none the worse for the event in the next pool area.

The moral to this story is very simple. If that "life preserver" saved the dolly, "Teresa," it could save *you . . . if you are wearing it.*

Robert Lynn Steiner
Waterways Patrolman
S/Luzerne County

FOUND A HOME?

I had two large black rat snakes in the display box in the window of the regional office. I decided it was time to turn them loose so they could fatten up for winter. I took them to a good area to turn them loose and a friend, Herb Schwegler, stopped in his pickup to see what I was doing. I crawled in the back of the Commission pickup and just dropped the snakes on the ground. They both took shelter under my friend's pickup, but, after a few minutes of watching only one had come out from under it. I looked under and saw the tail disappearing up inside the motor area. I tried to pull it out but didn't want to hurt it. I let go and it completely disappeared. After getting a mat from my vehicle and spending another 10 minutes underneath, I finally located it inside a 6-inch square section of the frame. After another 5 minutes I finally got it out and sent it on its way.

Cloyd Hollen
Assistant Supervisor
Northwest Regional Office

VARIED ACTIVITIES —

On August 29, 1979 Deputy Duane English and Don Tombaugh were out on a routine search for a reported vessel in distress in Lake Erie off the Walnut Creek Access Area. After determining the report to be false the two were returning to

Walnut Creek when they spotted a red revolving light on the water. The light turned out to be a beacon on an amphibious type airplane which suffered serious damage while attempting to land on the lake. The pilot and his passenger were luckily uninjured and the engine of the plane was still operable. The aircraft was then escorted in the channel of the access area, into the mooring basin, driven up the launch area and secured safely in one of the parking lots. It is surprising the number of people who still think we only deal with fish!

James Carter
Waterways Patrolman
Erie Country

"TROPHY" CATCH

While checking fishermen the opening day of trout season, I observed a local science teacher (whose name escapes me) with a "bulging" creel along Yellow Creek. When he saw me he said, "Hey, Buddy, look what I caught," at which time he revealed two trout and a set of deer antlers. He said the antlers "hit" a minnow and gave him more fight than the trout did.

Allen G. Stiffler
Waterways Patrolman
Indiana County

DUMMY RUN —

On the afternoon of September 2, 1979 Special Waterways Patrolman Dan Christine was patrolling the Lake Clarke pool of the Susquehanna River when he noticed a man fishing near the intake area of the Safe Harbor Dam. Since Deputy Christine did not see a fishing license displayed on the man, as required by law, he felt he should have a talk with him. While Deputy Christine and the man talked, he told Deputy Christine that he was not fishing and did not have a fishing license. As it turned out the man was a maker of homemade fishing plugs and was testing the latest design . . . the plugs he was testing had no hooks!

Ronald L. Hoffman
Waterways Patrolman
S/York County

VERY FIRST CAST

This story was related to me by Vic Runco, who moved to Pennsylvania during the 1950s, from Italy. Vic speaks broken English and had never gone fishing in his life until just recently. A friend of Vic's, talked him into buying a license and spending a weekend fishing at Tionesta Lake. Sitting in a boat on Tionesta Lake, his friend explained to him how to cast a line. Then Vic asked him, "How do you work this thing?" when handed a spinning rod. Vic's friend made several demonstration casts, and Vic made his very first, which wasn't too bad, but Vic asked, "Now what do you do?" He was instructed to retrieve the line by cranking the reel. Upon trying to retrieve, his line started to hang up, and his friend stated he must be hung up on a rock. But suddenly something started tugging at the line. Several fishermen nearby came to the rescue and aided Vic in landing a 28-inch musky. Vic is still trying to understand how a fish *so big* had to be returned to the water because it was *too short!*

Jim Smith
Waterways Patrolman
Armstrong County

FALSE ALARM

Recently Trooper William Stouffer and I were working together on a special detail on Glendale Lake. It was approximately 3:30 a.m. when Trooper Stouffer noticed an object on the water. He shined his flashlight on the object and it turned out to be a piece of vegetation floating on the surface. Shortly afterward, the fog started setting in and approximately 10 yards in front of the patrol boat we both saw an object approximately 15 feet long, moving across the water. We stared at the moving object which had a snakelike appearance as it slipped silently across the surface of the lake in the night. There was no doubt in our minds and eyes that we witnessed the first sighting of a Glendale Lake "Lock Ness Monster." Could you believe that such a thing existed here in Pennsylvania? Well relax, for it turned out to be only a beaver pulling a long branch through the water!

Robert L. Kish
Waterways Patrolman
Cambria County

TOO LITTLE, TOO EARLY!

I happened to get in a little rock bass fishing prior to the opening of bass season this year. As is often the case, my companion was District Game Protector Tim Marks on an evening excursion on the Juniata above Lewistown. We had started out using artificial lures in hopes of enticing a few of the sporty fish, but soon settled on drowning a few worms when the fish indicated very early that they weren't terribly hungry. After over an hour of fishing — with only a few keepers on the stringer — we were on the verge of giving up and returning home when Tim brought in his line to check his bait. Attached to the size 8 hook was a tiny fish . . . appeared to be a bass fry. The fish was less than ½ inch long and firmly foul-hooked through the back! Tim rather embarrassedly released the fish when I assured him it was *too small, out of season,* and *illegally caught.*

Larry R. Baker
Waterways Patrolman
Mifflin/Juniata Counties

TROPHY —

During an inseason stocking, immediately after the opening of musky season, Wilmer "Jim" Stivers of Bradford approached me and announced, "Boy, I got a nice 48-incher yesterday!" "A musky?" I asked. "No, a *rattler!*" said Jim.

Don Parrish
Waterways Patrolman
McKean County

SLIPPERY

While stocking fish in Yellow Creek this past season, we stopped the truck at a bridge crossing the stream. As we were handing the buckets of fish down from the truck, one young man, who was anxious to help fell out of sight between the bridge and the stream bank. After several minutes of clawing, scratching, dirt and stones flying, he reappeared on the bridge, at which time Deputy Bob Letso replied, "Careful, young man, 'Travelers Warnings' are up."

Allen G. Stiffler
Waterways Patrolman
Indiana County

CRAWLY SITUATION —

I received a call from a contractor that was working at Pennzoil's Rouseville Refinery. Seems they had run into a problem of seeing snakes and the workers didn't want to work as they were reported as copperheads. Knowing the area, I assured them they were northern water snakes. To satisfy the complaint I made arrangements to meet with the contractor on site and have a look. They were water snakes and all was OK. Two days later I again received a call from Pennzoil and this time a little different. Seems they were unloading wood pallets from North Carolina and a big snake crawled out of one of the pallets and got away inside a warehouse. Barrels of oil and other equipment were everywhere. This time I was of no help!

Cloyd W. Hollen
Assistant Supervisor
Northwest Regional Office

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Ice fishermen catch few bass because fish of this species holes up in a state bordering on hibernation during the winter. They find refuge in rock crevices, sunken brush or sometimes even in mud, and they feed very little, often not at all.

Trout can drive an angler up the wall when they feed hungrily on the surface but refuse the fisherman's artificials. Actually, the trout are taking tiny midges, which can easily escape the notice of the angler as they float in the surface film. Even big trout will on occasion ignore big insects and gorge themselves on midges.



It's easy to check your fishing rod for worn or cracked guides. Cut a slice from a woman's nylon stocking (one that has been discarded, of course) and pull it through the guides. The material will snag inside a guide that is not perfectly smooth.

Latest fishing trick? Take the tempera- ture of a fish that is freshly caught. Its body temperature will be the same as that of the water where it was hooked. Of course, a stream thermometer is more accurate and less messy.

It's easy to convert a floating imitation plug into a sinker. Attach a couple of buckshot to the line above the plug.

In landing a walleye, be careful of the sharp spine on the top fin. The fish can inflict a deep and painful wound with this spine, so hold the fin down on the back of the fish while you remove the hook. Then you won't "spear" yourself.

Latest rage in plugs are those painted to look like real fish, such as perch. They have not been on the market long enough to show whether they actually are better than the conventional lures.

Strong, short-shanked hooks are excel- lent for most kinds of live bait. They are not so visible to the fish, and they sink more easily into the flesh of the mouth.

Try the smaller sizes of natural baits, such as minnows only two or so inches long. They may take surprisingly large fish.

Spinners in bronze or copper finish, rather that silver or nickel, are best in shallow water where brighter lures would frighten fish.

A fisherman is not necessarily known by the number of rods he owns, although rod collection is an understandable hobby. The good angler has just enough rods to handle the types of fishing he enjoys. He also has a spare or two for emergencies — but not a whole museum full.

Don't bump into stumps or sunken logs if fishing from a boat in cluttered water for bass, pickerel or bluegills. A bump will send vibrations through the water that will spook all the fish in the area.

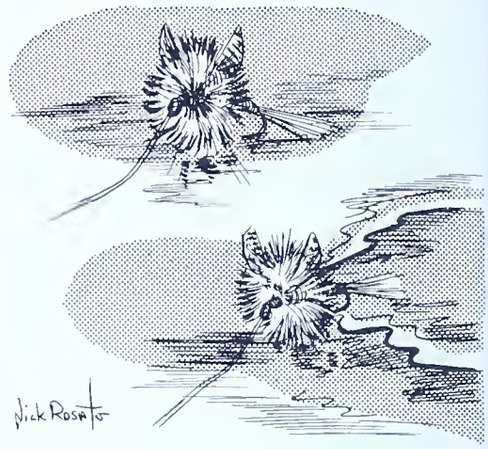
Very light lines are matched to very small lures for the obvious reason that the light lines cast the little lures better. But there is another reason: light lines are far less visible to fish.

Little pinches of bread and whole kernels of corn are good "chum" to attract bluegills as well as carp.

Bass were not biting one morning in a favorite small stream. My friend, Brooks, solved the problem. He waded into the shallow riffle at the head of the narrow pool and stirred up the gravel, sand, and other debris enough to put the water slightly off color. In a few minutes the bass began taking bait.



A dry fly that does not float freely but that drags on the surface of the water is almost always rejected by trout. Natural flies float lifelessly, but an artificial fly that drags creates a wake that is not natural and that is clearly visible to the trout.



Marabou is a fine dressing for jigs and streamers. The marabou fibers come alive in the water and get the attention of all species of fish.

Water depth can pretty well indicate the size of yellow perch you are likely to catch. The smaller fish usually are found in the shallows. The bigger perch like deeper water and often are caught as much as 25 or 30 feet below the surface.

For bass fly fishing next season, try these wet fly patterns: Parmachene Belle, Yellow Sally, Red Ibis, White Miller and Black Gnat.

A short cast is much easier for the angler to handle than a long one. It is wise, therefore, to approach carefully to within a relatively short distance of the water area to be fished rather than to try to reach it from a great distance.

Even tiny split shot pinched on a leader can pick up debris from the water. A narrow strip of thin sheet lead, adjusted in length to produce the weight desired, then wrapped around the leader, is better. Lead strips in packets like book matches can be bought, or thin strips can be cut from the light metal of a toothpaste tube.

Poor casts sometimes haunt even the best anglers. The novice will impatiently yank the line, leader and fly off the water and make a new cast. The expert will let the poorly cast fly drift well beyond the range of the fish before picking it up.

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